# DOCUMENT RESUME

ED 047 123 VT 012 472

| | |
|---|---|
| TITLE | Planning Education for Nevada's Growth. A Master Plan for Education. |
| INSTITUTION | Nevada State Dept. of Education, Carson City. |
| PUB DATE | 69 |
| NOTE | 556p.: Two vols. |
| EDRS PRICE | EDRS Price MF-$0.65 HC-$19.74 |
| DESCRIPTORS | Curriculum Design, *Educational Administration, Educational Coordination, Educational Planning, *Educational Programs, *Master Plans, Program Planning, State Curriculum Guides, *State Departments of Education, *State Programs, Vocational Education |
| IDENTIFIERS | *Nevada |

ABSTRACT

As the result of a 1968 directive by the Nevada State Legislature this study was undertaken to develop a master plan for education in the State, including plans for the development of a system of area community colleges. The study is the result of the work of department staff, personnel from many state agencies, and recognized authorities in education all over the United States. For each level of administrative structure and for each subject at each level of education from preschool to adult, the study examines present practices and emerging mandates, and makes recommendations. (BH)

C1

# Planning Education

# FOR NEVADA'S GROWTH

ED047123

## A MASTER PLAN FOR EDUCATION

ED047123

# PLANNING EDUCATION
# FOR NEVADA'S GROWTH
# A MASTER PLAN FOR EDUCATION

## VOLUME TWO

Prepared by

The Department of Education

STATE OF NEVADA

U.S. DEPARTMENT OF HEALTH, EDUCATION
& WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

BURNELL LARSON
Superintendent of Public Instruction

Carson City, Nevada
1969

# PLANNING EDUCATION
# FOR NEVADA'S GROWTH
## A MASTER PLAN FOR EDUCATION

VOLUME ONE

Prepared by

The Department of Education

STATE OF NEVADA

BURNELL LARSON
Superintendent of Public Instruction

Carson City, Nevada
1969

3

TABLE OF CONTENTS

Title Page .................................................. i

Table of Contents .................................. iii

Foreword .................................................. v

Acknowledgments .................................... vii

Introduction ............................................ xi

I. Organization and Administration

State Department of Education ................. 1

School District Administration ................. 13

Local District Administration ................. 13

The School Administrator ................. 27

II. Curricular Patterns

Preschool to Adolescence ................. 33

Preschool ................. 35

Early School Years ................. 55

Reading ................. 57
English ................. 65
Mathematics ................. 69
Science ................. 73
Social Studies ................. 76
Foreign Languages ................. 85
Physical Education ................. 91
Health Education ................. 99
Music ................. 103
Art ................. 107
Special Education ................. 111
Guidance and Counseling ................. 121
Occupational Guidance ................. 129

Middle Years ................. 133

Reading ................. 135
English ................. 139
Mathematics ................. 143
Science ................. 147
Social Studies ................. 151
Foreign Languages ................. 155
Physical Education ................. 159

4

Health Education .................................. 163
Music ............................................. 167
Art ............................................... 173
Special Education ................................. 177
Guidance and Counseling ........................... 185
Occupational Guidance ............................. 187
Industrial Arts ................................... 193
Health Occupations ................................ 197
Business and Office Occupations Education ......... 201

Prevocational Years ................................ 205

Reading ........................................... 207
English ........................................... 211
Mathematics ....................................... 219
Science ........................................... 223
Social Studies .................................... 227
Foreign Languages ................................. 233
Physical Education ................................ 237
Health Education .................................. 243
Music ............................................. 247
Art ............................................... 251
Special Education ................................. 255
Guidance and Counseling ........................... 263
Occupational Guidance ............................. 269
Health Occupations ................................ 275
Business and Office Occupations Education ......... 279
Home Economics .................................... 287
Industrial Arts ................................... 297
Technical Education ............................... 301
Driver Education .................................. 307

Career Development Years ........................... 311

Occupational Guidance ............................. 317
Health Occupations Education ...................... 321
Office Occupations Education ...................... 323
Distributive Education ............................ 365
Home Economics .................................... 379
Trade and Industrial Education .................... 391
Vocational Agriculture ............................ 397

Adult General Education ............................ 403

See VOLUME II for:

III. The Educational Facility

IV. Financing Public Education

V. School Services

# FOREWORD

This document is the result of a year of study and planning under the auspices and direction of the Nevada State Department of Education. All staff members of the department participated directly in its preparation, and all are contributors to it. It is the result of a charge given to the State Department of Education by the Governor's State Council on Vocational-Technical Education and Community Colleges. An applicable excerpt of that resolution follows with appropriate sections underlined.

"That the State Department of Education be charged with the responsibility of developing a master plan for education in the State of Nevada, covering such areas as the feasibility of creating area community colleges and/or vocational-technical centers in the state; additionally, consideration should be given to developing plans for phasing in vocational-technical training into the curriculum of the secondary schools in a sequence, leading to additional training in the 13th and 14th grades.

In addition, the 1968 Special Session of the Nevada State Legislature in the Act relating the establishment of community colleges charged the Nevada State Department of Education as follows:

"1. The State Department of Education shall study and recommend to the 55th Session of the Nevada Legislature a Master Plan for education. This study shall include, but not be limited to:

   (a) The feasibility of creating, throughout the State or in suitable areas thereof as the study may reveal, area community colleges or vocational-technical centers.

   (b) Plans for the adaptation of vocational-technical training in high schools to take maximum advantage of further training to be offered in such community colleges or vocational-technical centers.

   (c) Plans relative to finances, curriculum, organization and facilities.

   (d) Exploration to determine community desire and sponsorship for creation of such community colleges.

   (e) The potential enrollment and business and industrial opportunity for graduates of such community colleges.

2. The recommendations shall include:

   (a) The minimum tax base, minimum population and initial local financial effort necessary to support a community college.

   (b) Plans relative to cooperative financing by the federal, state and local governments and other sources."

The undertaking of such a study covering all phases of public school education in Nevada is monumental by virtue of its scope and significance and because of its implications. It must, of course, reveal something of salience and consequence, or the effort has been merely an exercise in sterility, with no profit to either the reader or the writer.

It is hoped that the material herein presented does have significance for both educators and all others who have in the past declared the urgent need for planning and identification of education's posture and requirements.

From a scrutiny of the contents of this study, it should become apparent to all that the gap between current effort in our schools and what needs to be accomplished is indeed a wide one. Not only has this opus attempted to create an understanding of this discrepency, but to offer alternative possibilities for closing this gap.

Certainly it is recognized that what is needed cannot be produced immediately, but the very understanding of what the eventful goals should be will promote planning to those ends and for their eventual accomplishment.

Burnell Larson

7

# ACKNOWLEDGEMENTS

The following have assisted in the development of the Master Plan:

Dr. John A. Bailey
Associate Professor of
Secondary Education
University of Nevada

Mr. Halver Bennion, Principal
Henderson Junior High School
Henderson, Nevada

Dr. George A. Broten
Professor of Health
Physical Education & Recreation
University of Nevada
Reno, Nevada

Mrs. Marlene Butorac
Lecturer in Elementary Education
University of Nevada
Reno, Nevada

Mrs. Lucille Clark, Teacher
Washoe County School District
Reno, Nevada

Dr. J. Clark Davis
Professor of Education
University of Nevada
Reno, Nevada

Mr. Clayton Farnsworth, Principal
Clark County Vocational-
Technical Center
Las Vegas, Nevada

Mr. John C. Fitch
Director of Innovation and
Dissemination
Granada Community School
Corte Madera, California

Mrs. Noreen Hawley, Teacher
Bertha Ronzone Elementary School
Clark County School District
Las Vegas, Nevada

Dr. Miriam Kapfer
Research Assistant
Clark County School District
Las Vegas, Nevada

Miss Alice Ann Bauer
Home Economics Teacher
Carson City High School
Carson City, Nevada

Mr. Roy S. Berry
Director of Special Education
Washoe County School District
Reno, Nevada

Mrs. Linda Hall Batchelder Brainard
Consultant
Hampton, New Hampshire

Mrs. Ann Cason
Teacher
Earl Wooster High School
Reno, Nevada

Dr. Howard H. Christensen
Associate Professor of Agricultural
Economics and Agricultural Education
University of Nevada
Reno, Nevada

Dr. Edwin S. Dodson
Associate Professor of
School Administration
University of Nevada
Reno, Nevada

Dr. Robert M. Gorrell
Professor of English
University of Nevada
Reno, Nevada

Mrs. Hazel I. Hardy
Assistant Professor of Home Economics
University of Nevada
Reno, Nevada

Mr. H. Mike Hartoonian
Supervisor of Social Studies
State Department of Education
Wisconsin

Mrs. Gloria Julius, Teacher
Earl Wooster High School
Reno, Nevada

Dr. Esther Mack
Professor of Education
San Jose State College
San Jose, California

Miss Marcella McComas
Distributive Education Coordinator
Earl Wooster High School
Reno, Nevada

Mr. Donald Payton
Principal
Huffaker Elementary School
Reno, Nevada

Mr. Ralph Rea
Teacher
Sparks Junior High School
Sparks, Nevada

Mr. William Rohrer
former Vocational Business Education Teacher
Wooster High School
Reno, Nevada

Dr. L. J. Rubin
Director of the Center for Coordinated Education
University of California
Santa Barbara, California

Miss Dorothy Seigel
Director of Special Education
Clark County School District
Las Vegas, Nevada

Mrs. Elaine Smith, Teacher
Earl Wooster High School
Reno, Nevada

Mr. Jackson Stephens, Teacher
Earl Wooster High School
Reno, Nevada

Dr. Patricia A. Tripple
Professor
Home Economics Education
University of Nevada
Reno, Nevada

Dr. Thomas T. Tucker
Professor of Education
University of Nevada
Reno, Nevada

Dr. Teddy R. Tower
Associate Professor
Elementary Education
University of Nevada
Reno, Nevada

Mrs. Rose Turner
Teacher
Earl Wooster High School
Reno, Nevada

Mr. William Wallin
Principal
Ruby Thomas Elementary School
Las Vegas, Nevada

Mrs. Shirlee Wedow
Contract Representative
Eight-State Program
Reno, Nevada

Staff members who assisted are as follows:

Mr. Merlin Anderson
Mr. Robert Best
Mr. John W. Bunten
Mr. Frank R. Brown
Mr. Washington C. Burks
Mr. Jack K. Clark
Mrs. Margriet Clevenger
Mr. Bert Cooper
Mr. Edward Cordisco
Mr. Larry Davis
Mr. John R. Gamble
Mr. Denis Graham
Mr. John Griffin
Mr. Edward H. Howard
Mr. Vernon Howard
Mr. Burnell Larson
Mr. Robert Lloyd
Mr. John H. Madson
Mr. Thomas E. Ogg
Mr. Jack O'Leary

Mr. James Peddicord
Mr. Gerald Shelby
Mr. Harvey Thiel
Mrs. Genevieve Pieretti
Mr. Herbert R. Steffens
Mr. Bernard Vidmar

Edward H. Howard and Thomas E. Ogg were responsible for editing and rewriting.

Overall planning and development of the Master Plan was coordinated by John R. Gamble.

Special thanks for guidance and suggestions to Burnell Larson, Superintendent of Public Instruction.

# INTRODUCTION

Seeds of Change for public education in Nevada were sown as early as 1955 when the Nevada State Legislature adopted recommendations of the Governor's Committee on Education. The changes resulting from these acts were broad, dramatic, and in many cases traumatic as they affected local public schools throughout the State. Local level organization and administration of schools advanced in great strides during the subsequent years, matched only by the growth in school enrollment.

The seeds of change were slow to germinate, however, in state level educational functions. Minor growth and development took place during the early sixties, but the major thrust did not appear until early 1965. This appeared concurrently with the infusion of increased Federal funding.

Upon the impending retirement of the former superintendent of public instruction in July of 1966, the State Board of Education determined that an overall study of the department should be undertaken. The initial and basic organizational structure of the department would be established along functional lines, and guidelines for recruitment for a new superintendent would be based upon these principles. A contract for this study was awarded and at this point the long dormant seeds of change began to sprout. The resultant organization of the Department of Education led logically to several developments.

In order for the State Department of Education to fulfill its obligation as the responsible agency for public education in Nevada, longe-range planning together with immediate functional coordination of educational activities and programs was an obvious necessity. These objectives were borne out in the "Philosophy of Education" adopted by the State Board in January of 1968. This set the stage for the development of a master plan, conceived as a result of staff study of the philosophy and apparent mandates that were emerging for the department.

The document that follows is the result of endless hours of labor, thought, discussion, research, writing and rewriting. It involved not only all members of the department staff, but personnel from many state agencies, as well as recognized authorities in education all over the United States.

What is written here, however, will be of little value if merely accepted and forgotten. The implementation of the ideas presented, the models described, and the adaptation of the exemplars, can bring about exciting and challenging new concepts in our public schools. This document is the plant produced by the long dormant seeds of change. With the concentrated and dedicated leadership of the Department of Education staff as well as educators and legislators of all Nevada the plant will bear fruit. That fruit can be greater achievement, increased educational opportunity, and an educational climate second to none for all Nevadans.

John R. Gamble

# Section I

# Organization and Administration

## STATE ORGANIZATION AND ADMINISTRATION

### Nevada State Board of Education and the State Department of Education

### Present Posture

The State Board of Education acts by virtue of authority vested in it by the Nevada State Legislature. Its powers and duties are well defined in the statutes which generally grant the power to facilitate direction and influence upon the supervision, management and control of the public schools. Inherent in these powers is the authority to establish appropriate policy and the administrative procedure for the governance of schools and school districts. Such statements declare, among other things, that all meetings of the State Board of Education shall be open except those dealing with personnel; that decisions shall involve the participation of all board members; that interpretation of the educational needs of the state shall be an important function; that policy formulation through the advice and counsel of professional leadership shall receive primary emphasis; that the management of school districts shall be a local function; and that dedication to the promotion of a system of education specifically designed for the needs of a highly diversified citizenry together with an economical expenditure of state funds shall exemplify the spirit of the Board.

The Nevada State Board of Education consists of eight members, six of these are elected on a non-partisan basis from the six educational supervision districts of the state. The term of office of each of the members of the State Board is four years. These members serve without compensation, but are reimbursed for expense incurred in attending meetings. The Nevada State Board of Education serves also as the State Board for Vocational Education, a dual role assumed by state boards in most of the states.

The general principles governing the operation and deliberation of the State Board stem from a document identified as "The Nevada State Department Philosophy of Education". This is an extremely significant document in that it creates and identifies the posture of the State Board with regard to the educational enterprise. This document is quoted here as follows:

"The emergence of the operational philosophy for the guidance and direction of the Nevada State Department of Education represents the most valid and searching analysis of educational intent and objective currently accessible and available. It is offered, not only as a guide to purposeful operation of the educational agency, but to lend credence, determination and resolution to the educational venture and enterprise in the local school districts.

"The philosophy of the department cannot ever remain as a fixed modicum of intent and function, for as the state and nation grow and change, so must the educational proportion alter and evolve to encompass diversity and mobility within the unifying influence of a democratic society.

"It is, then, with a foreknowledge of its viability and certain recognition of, and deference to possible frequent change that the philosophy is propounded.

"1. The Nevada State Board of Education recognizes the interdependency of the environment and climate of education in the state and pledges its support to those other institutions of education, government and commonality to promote the national purport of education for all the people. It further identifies an increasing community of interests and purposes in public and private organizations and stipulates assistance to these entities to carry out the purposes of education.

"2. It perceives that it must devise its own great prestige, intent of leadership and breadth of perspective, while serving as a stimulator of change within the context of disbursed local initiative.

"3. It acknowledges the growing concern for children who lack full educational opportunity--the poor, the neglected, the unmotivated, the victims of discrimination and prejudice--and declares its advocacy in full measure of those programs and educational opportunities to be placed at the disposal of those children. As a corollary to foregoing the board determines that integrated education teaches that the child must be nurtured in the understanding that differences in people are not as great as similarities, and that differences can be a source of value rather than something to be feared or denied, and that this can be taught anywhere.

"4. It perceives innovation and creative change in the following:

(a) In educational theory which suggests that learning can be very effective as the child discovers for himself under the competent direction of an able teacher.

(b) In the education of teachers who need more and more to be brought abreast of techniques of motivating the child, enlarging the scope and consequence of subject matter and in mode of procedure in the classroom.

(c) In educational mechanics which by continuance of such devices as programmed instruction, building design, scheduling, non-grading, team-teaching, audio-visual media, and other comparable items of time, space and curriculum can lead to greater efficiency.

(d) In special education for the disadvantaged which can include preschool, post-high school and adult education.

(e) In the direct use in the teaching and learning process of all educational resources in the several communities, including television, libraries, the hereditaments of the performing arts and museums.

"5. The State Board further acknowledges its willingness to consider the rights of teachers in their working arrangements, their conditions of employment, salaries and collateral prerequisites.

"6. It identifies its responsibility to create and maintain a workable body of minimum regulation to fulfill its statutory charge of control and supervision of local districts.

"7. It recognizes its responsibility to promote the most effective use of federal funds, to extend and update vocational education and to seek ways to aid financially its improvement and expansion.

"8. It comprehends the proposition that ability to secure the great amounts of money needed for quality education will be determined by the demonstration, through a statewide system of evaluation and assessment, that funds already invested have resulted in improvement.

"9. It recongizes that the Nevada State Department of Education must be organized to provide and interpret continuing information about education to the effect that the public may know the needs, has guidance in making wise choices and is aided in expressing the collective will.

"10. It understands that the department must be constituted and equipped to furnish consultative service, advice, demonstration and evaluation to all schools and systems.

"11. It determines that education is an investment and not a cost and therefore takes first priority in achievement of state and national goals, that the responsibility for keeping professional staffs abreast of current knowledge has shifted from the individual to larger units of government representing society's interests in the common good that education can bring.

"12. It endorses the concept of "Creative Federalism" which manifests a local-state-federal sharing of responsibility while acknowledging the individual and singular importance of these entities with their accompanying powers and responsibilities to execute a most important public purpose which all have in common but which none could consummate as well without the cooperation of the others."

# STATE ORGANIZATION AND ADMINISTRATION

## Nevada State Board of Education and the State Department of Education

### Emerging Mandates

**I. THE STATE DEPARTMENT OF EDUCATION OF TODAY AND ITS GOVERNING BOARD MUST BE A MOVING, CREATING SPIRIT AND AN AGENT OF CONSTRUCTIVE CHANGE.**

The role of the State must be more and more to provide diversity in leadership; to organize and coordinate an effective educational system; to establish a sound foundation program for financial support; to provide efficient coordination and distribution of funds; to establish minimum standards for achievement and quality controls; to lead in long-range planning; to conduct, cooperate in and encourage research to stimulate innovation; to assist localities in evaluating results; to develop good informational systems on the facts and conditions of education, and provide stimulation to local school districts to go beyond a minimal performance. The State Board and the department must move from a regulatory body and a mere distributor of subsidies, and become a stimulator of change within the context of dispersed local initiative. Since the role of the Federal Government now seems to be one of identifying national goals and needs in education and providing massive infusion of supporting funds along with evaluating our total effort as a nation, the states can do no less than respond to its mandates as enumerated above.

Certainly one of the influential factors affecting the states is the rising trend toward universal higher education. No one dare challenge the proposition that at least two years of continuing education will soon be common experience for a majority of high school graduates. This trend must bring about a re-examination of vocational education, including its general availability, its nature and the division of responsibility for it between secondary and higher education.

Another factor calling for positive and creative leadership in the administration of education is the growing issue of unionism among teachers. The more militant nature of their traditional professional associations and the mounting competition between unions and professional associations for their affections continue to be trends of particular concern. Conditions of employment for teachers, including working arrangements, salaries, collateral prerequisites, and their role in the development of educational policy call for administrative astuteness and new state responsibilities and services to local school districts in this respect, such as has never been seen before.

**II. IT IS CERTAIN, FROM THE ABOVE REVIEW, THAT THE NEVADA STATE BOARD OF EDUCATION SHOULD CONTINUE AS AN INDEPENDENT STATE BODY TO INSURE THAT PUBLIC EDUCATION IN NEVADA REMAINS FREE FROM PARTISAN POLITICS AND TO DENOTE ITS IMPORTANCE.**

Education is recognized appropriately as a function of the individual states. So that this function can properly be identified and implemented, a non-partisan and independent state board of education

4/ 5

is most important. If it is to respond properly to the emerging requirements of leadership to the new demands being made upon the educational proportion, it must certainly preserve its independence and its uniqueness among all of the agencies of state government.

# STATE ORGANIZATION AND ADMINISTRATION

## Nevada State Board of Education and the State Department of Education

### Recommendations

### The State Board

Nevada Revised Statutes identifying the composition of the State Board and granting its powers, recognized the need for freedom and self-determination within this body. Only one factor may serve as a deterrent to future effective operations and that factor pertains to the number of members presently constituting the board. Most authorities recommend an odd-numbered board as a device for minimizing impasses, with overlapping terms to insure stability and to maximize the ratio between experienced and inexperienced board members. A State Board of nine members approaches the ideal, which makes its composition large enough to obtain fair presentation while minimizing the influence of a single dominant or overpowering personality. At the same time, such a board is neither too large nor too cumbersome and expensive to maintain its operation. It seems reasonable that this additional member could be elected from among the supervision districts presently identified in the state which has the highest density of population. Legislation relating to this matter would carry the requirement that the number of non-partisan elective members of the Nevada State Board of Education be increased from six to seven and that enactment be provided for overlapping four-year terms to insure that no more than three of the seven elected members would be elected in any given year. The present practice of elected board members appointing two additional members (one to represent Agriculture and one to represent Labor) should be continued. The appointment of these two board members should be arranged so that only one of the two will be appointed in any given year.

### Department of Education Operation and Organization--A New Design

The Nevada State Department of Education, during the past recent months, has set about the process of creating a new organizational structure which, it is hoped, will more nearly encompass a revised design to meet new mandates and to rise to the demands increasingly made upon it. If this changed organizational scheme can be said to carry a title, that title would probably be "Form Follows Function"--meaning that once a basic function has been identified, the only reason for any kind of organization would be that of creating a vehicle which would most efficiently carry that function.

Since one of the basic pursuits has been truly identified--that of creating and outlining a master plan for total education in the State of Nevada--there remains only the select identification of an organization that will first, identify the plan and second, carry out the process of its implementation--an implementation that will require the efforts of a total staff working toward the objectives of the same plan.

It is, then, with the above factors in mind that the Nevada State Department of Education is now the process of implementing such an organizational pattern. Figure I is a schematic of this new format which is intended to focus the effort of total personnel in the promulgation of service for all school districts. As can be seen from the diagram, this plan combines vocational-technical education and instruction under one division called the Division of Educational Services to provide concordant effort for both the academic and vocational curriculum, so that one can strengthen and integrate with the other, rather than exist in isolation, or as may have been the case, at almost cross-purposes with the other.

The Division of Operations, as the name implies, is established to promote functions in certification, liaison with other agencies, federal funding, research, publications and personnel.

The Division of Administrative Services is primarily equipped to accommodate the business and accounting function, to gather statistics relative to the costs of education, to make recommendations regarding the state financial support formula, to conduct audits, to promote activities in internal data processing, to make recommendations and establish guidelines for school plant and facility planning, to carry on an audit of functions of the school lunch program, to establish criteria and monitor the effectiveness of school transportation and to identify policies and regulations pertaining to all phases of the financial administration of school districts.

The most significant consideration with reference to any operational chart, however, is that it should represent a framework and a format for conducting the operational phase of the department's effort. Once the total plan of education has been clearly identified, it becomes a responsibility for the staff of the department to set about the task of implementation--but implementation with common goals and objectives in mind as expressed in the Master Plan.

Actual transformation to this new organizational structure is necessary to be accomplished by degrees. Reasons for this are somewhat obvious. First, the department is under mandate that no additional positions will be authorized, which means that to create the new, a shift or change in the old must be effected. Second, it would be unwise to shift personnel from one responsibility to a broader or a different one until roles, duties and functions are clearly identified and understood in the new position. Third, since the new pattern is an emerging one depending in part on different demands, active shifting of people must be accomplished only when the demand for the service is apparent. Through it all, it must be recognized that each component or division of the department must function integrally with each other division or department or branch to accomplish the purposes of total education. Thus, a total or task-force approach can be used in responding to all the needs of education in Nevada.

Moves toward implementation of the new organizational structure thus far accomplished would include the establishment of the assistant superintendency in southern Nevada with broadened powers and revised scope of activity. This position now calls for the person occupying it to interpret departmental policy and posture, to be involved directly in deploying departmental personnel where needed, and, broadly, to act as a representative of the Superintendent of Public Instruction. Formerly, the office in southern Nevada operated merely as a certification and licensure branch, and it was very evident that this was insufficient to fulfill the mandates of a totally integrated Department of Education. This office, therefore, participates in and becomes a directing force for all educational activity in that part of the state, including Lincoln, Clark, Esmeralda and Nye Counties.

The Deputy Superintendent, in this plan of organization, becomes a coordinator of all divisions. Administrative responsibility for the efficacious functioning of the department are his. He is responsible directly to the superintendent and is concerned with the day-to-day application of policy and administrative pro-

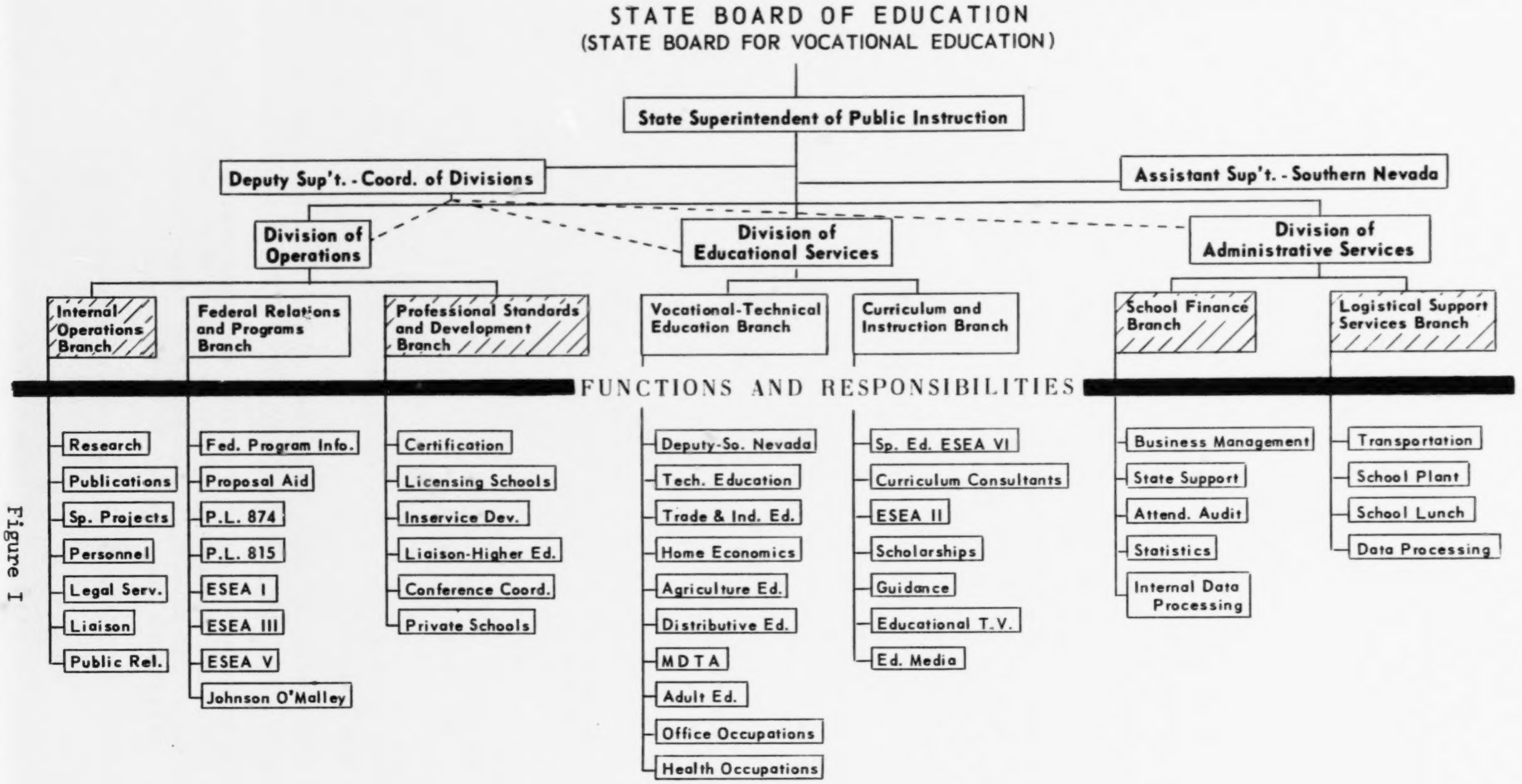

STATE BOARD OF EDUCATION
(STATE BOARD FOR VOCATIONAL EDUCATION)
State Superintendent of Public Instruction
Deputy Sup't. - Coord. of Divisions
Assistant Sup't. - Southern Nevada
Division of Operations
Division of Educational Services
Division of Administrative Services
Internal Operations Branch
Federal Relations and Programs Branch
Professional Standards and Development Branch
Vocational-Technical Education Branch
Curriculum and Instruction Branch
School Finance Branch
Logistical Support Services Branch
FUNCTIONS AND RESPONSIBILITIES
Research
Publications
Sp. Projects
Personnel
Legal Serv.
Liaison
Public Rel.
Fed. Program Info.
Proposal Aid
P.L. 874
P.L. 815
ESEA I
ESEA III
ESEA V
Johnson O'Malley
Certification
Licensing Schools
Inservice Dev.
Liaison-Higher Ed.
Conference Coord.
Private Schools
Deputy-So. Nevada
Tech. Education
Trade & Ind. Ed.
Home Economics
Agriculture Ed.
Distributive Ed.
MDTA
Adult Ed.
Office Occupations
Health Occupations
Sp. Ed. ESEA VI
Curriculum Consultants
ESEA II
Scholarships
Guidance
Educational T.V.
Ed. Media
Business Management
State Support
Attend. Audit
Statistics
Internal Data Processing
Transportation
School Plant
School Lunch
Data Processing

Figure I

☐ Existing or in process of implementation

▨ For future implementation functions absorbed by related branches or division

1. Functions listed are not intended to be all inclusive, and those listed are representative of the branch under which they are listed.
2. Full implementation of this chart will come only as needs of the state mandate creation of a branch or function to meet those needs.
3. Branches, sections and functions are subject to change as new and different needs of education develop within the state.

Dec., 1967
Revised Jan., 1968

cedure as developed by the superintendent and the State Board of Education.

The State Superintendent of Public Instruction, the Deputy, the Assistant Superintendent, Southern Nevada, and each of the division Associate Superintendents form the administrative cabinet of the department. This body determines any changes in individual staff responsibility, any altered direction and purpose for current position, and the constant review of all functions and all staff positions in terms of their contributions toward an integrated and statewide effort for total education, educational leadership and management.

Two salient factors of this organizational pattern bear repetition at this point. First, the organization must lend itself to the proposition that every staff member will operate in a broader area of demonstrated need rather than in a narrowly confined subject matter discipline. The premise here is that if specific expertise is required as service to school districts, it can be brought in from outside the department in the form of special consultants without the necessity of carrying these people on the payroll for extended periods of time.

In other words, it seems evident that departmental leadership should direct itself more specifically to curriculum building within the scope and purview of the elementary curriculum than to its discrete parts. Building, for example, curriculum from kindergarten through the fourth grade and integrating all of its component parts is more effective than attempting to establish a specific reading program in a school district, which program may or may not have reference to all other programs in the total curriculum.

The second prime consideration in the new organizational format is that the State Department of Education is gearing itself to to this broader impingement with a smaller staff than employed heretofore, but a staff whose impact, resolution, and responsibility makes itself felt on a much broader scale. In other words, fewer people have been required to do more work and to accomplish the task with a specific unified goal as an objective.

## Staff & Personnel

Since the above design for organization really calls for effective leadership at all levels, there is inherent in it the comprehension that the professional staff must possess superior qualifications and broad experience equal to and exceeding that of personnel found in leadership positions in the public school districts or even at the university level. Certainly each individual staff member should have a history of experience which includes outstanding success in the area of his or her specialization. Since the premise of a changed organization pattern such as has been outlined assumes the fact that effective change leading to quality education is more likely to come through leadership than through the enactment of regulations, new responsibilities for the Nevada State Department of Education will demand a significant increase in the strength of its professional staff.

Personnel policies under which the State Department of Education operates and through which recruitment and selection of personnel is mandated, cause considerable problem in the operation of an educational agency. The Attorney General has identified the State Department of Education as such; namely, an educational agency, but by the very restriction of the state personnel laws regulations, this department is not able to recruit people at salary levels commensurate with the activities that are expected of them.

School districts and the University of Nevada have the prerogative of establishing their own salary schedules and identifying their own recruitment procedures. The position of the State Department of Education represents a kind of anomaly, in that the department which is under mandate to furnish leadership to the educational proportion, is unable to offer salaries which attract and maintain staff to promote this kind of leadership. The department is forced into competition with school districts in recruitment of its people but it is never truly competitive because entering salary levels are not commensurate with even the principalships in the two large school districts.

It, therefore, seems reasonable that all professional positions in the State Department of Education should be removed from the classified lists of the Nevada State Personnel Division, and that such professional personnel be appointed by the Nevada State Board of Education upon recommendation by the Nevada State Superintendent of Public Instruction. It further is recommended that the State Department of Education be declared by statute an "educational institution", separate from the jurisdiction of the State Personnel Division in terms of all professional positions.

The State Board of Education naturally holds the State Superintendent of Public Instruction responsible for the effective operation of the State Department of Education. It is inconsistent, in view of the above, that the state superintendent, in reality, is not directly involved in determining who shall be employed as a staff member in the department. The State Superintendent and the State Board then should be provided the freedom necessary to staff with quality personnel and the superintendent, in view of his responsibilities as determined by the board, must be provided with parallel authority to accomplish the desired results; namely, that of finding and recommending for employment the best qualified people that can be attracted.

# SCHOOL DISTRICT ADMINISTRATION

## Present Practices

Nevada school districts, as presently constituted, were established by the Nevada State Legislature in 1956, which created the boundaries of local school districts as being coterminous with the boundaries of the 17 counties in Nevada, and provided for the establishment and election of boards of trustees. In general, these boards were assigned powers to attain "the ends for which public schools are established and to promote the welfare of school children". Section 391.110 of Nevada Revised Statutes authorizes local boards of trustees to employ a superintendent of schools and to define his powers and fix his duties. Statutes further declare that a local school district is a political subdivision which has, as its purpose, the administration of the State system of public instruction.

The above description of administrative framework implies that the State laws of Nevada and the regulations of the State Department of Education must be fulfilled, but within a manifesto of local prerogative to determine mode, style, and format under dispersed local initiative.

Over the years the administrative organizations within school districts have come to vary in scope and structure because of the sizes and natures of each of the districts, and the relationship between its social environment and its fiscal resources. The two large school districts of the State must necessarily maintain large and highly structured organizational administrative patterns, while the other districts vary considerably in their administrative designs in accordance with county population and wealth.

For convenience of description and identification, it seems reasonable to arrange Nevada school districts in three general categories. Districts identified as small would be those with a total school population of less than 1,000 students. This category includes Esmeralda, Eureka, Lander, Lincoln, Pershing, and Storey Counties. Churchill, Douglas, Elko, Humboldt, Lyon, Mineral, Nye, Ormsby and White Pine County school districts can logically be designated as middle school districts, having a total school enrollment of more than 1,000 but being of considerably smaller size than the two large school districts of Clark and Washoe Counties.

To represent the salient features of organizational structure in school districts of varying size, certain of the more representative examples of each of the categories are described below.

### Clark County School District

The newly adopted (1968) administrative reorganization for educational service in the Clark County School District establishes its basic concept of administrative organization on a "service organizational chart" which identifies a circular flow of responsibility, communication and services, within the educational needs of all the children become the salient factor of administration and the ultimate goal of the entire community. The staff-line organization, which thereby develops below the superintendent, establishes five major service divisions: Instruction, School Facilities, Communications, Personnel and Business. Each is the responsibility of an associate superintendent. The vertical pattern of the organization also establishes six

12/13

assistant superintendents who are the general area administrators concerned with the operation of the functions defined in each service division. The vertical flow of the organizational authority then moves downward to the principals and teachers.

## Washoe County School District

This district with a student population of something over 25,000 has recently been designed to function in a manner similar to that of the Clark County School District. Beneath the superintendent, two associate superintendents are assigned the responsibility of directing two divisions--Instruction and Business. Four administrative assistants direct the specific fields of (1) Student Services, (2) Personnel Services, (3) Planning, Construction and Maintenance, and (4) Research and Development. Communications service is provided by an administrative aide to the superintendent who is involved directly with dissemination of information and educational communications. The vertical staff-line of organization is followed downward from the superintendent to the principals and teachers.

## Middle School Districts

The Elko County School District and the Ormsby County School District are selected in this classification to represent the extreme diversity of organizational patterning in two counties of approximately equal size as far as school population is concerned. Not only do these two counties differ in geographic size, but in density and concentration of population. Elko County encompasses an area of 17,127 square miles, while Ormsby County is only 141 square miles in size.

The style of administration necessarily is greatly affected by this. Ormsby County can rely upon central office administration and service to all of its schools which are in close proximity. The Ormsby County School District has a superintendent and six staff members comprising its central administrative organization. In addition, there are eight individuals on the certificated central staff who render services to the instructional program.

The Elko County School District relies much more heavily on the principals of the individual schools scattered throughout the county. In the central office are the superintendent and one assistant superintendent in administrative capacities. One other certificated individual provides curricular consultative service to the small and considerably dispersed rural schools.

Each of the seven other middle school districts have administrative structures designed somewhere between the two diverse extremes outlined above--each one intended to respond and cater to its own unique needs.

## Small School Districts

Esmeralda County School District has a total student population of approximately 60, and is, therefore, the smallest educational unit in the State. The school district did not provide for a superintendent or supervisor until the current school year, but at various times in the past a coordinator was designated for the three small elementary schools within the area of the county. The coordinator also provided liaison for the school district in its relationships with Nye County and the school district of Bishop, California. These two school districts provide the educational facilities and programs for Esmeralda County high school students.

The Storey County School District employs a superintendent who also assumes the role of principal of a combined school for grades 1 through 12. This is an example of the simplest administrative structure since there are only two vertical levels of staff-line relationship. The superintendent communicates directly with the teachers in all matters related to the administration of the total school district.

The Lincoln County School District employs a superintendent, the only individual in this case carrying fully identified administrative duties within the administrative structure. This county, however, provides the greatest number of personnel--four--which renders service to the educational program. Of the other three small county school districts, each employs a superintendent and from one to three individuals in the central office to provide service to the educational program of each of the districts.

The foregoing brief analysis of administrative organization, practices and procedures, if nothing else, illustrates diversity--but diversity maintaining common elements. Those elements, of course, are those which seek to provide as many different services to school children as is possible.

# SCHOOL DISTRICT ADMINISTRATION

## Emerging Mandates

**I. MEANS MUST BE DEVISED TO OFFER EQUAL EDUCATIONAL OPPORTUNITIES TO ALL CHILDREN IN ALL AREAS OF NEVADA.**

Since the advent of statewide systems of education, a consistent effort has been maintained to equalize educational opportunities for children. There are at least as many plans for accomplishing this as there are states, and while this is a goal worthy of achievement, it is an extremely elusive one because of the almost unlimited number of variables which cause inequality. Of late, new consciousness of the inequality of educational opportunity has permeated our society. This consciousness is manifested by, in part, the massive infusion of Federal funds designed to attempt to correct such inequality. Pertinent to the case are funds allocated under Title I of the Elementary and Secondary Education Act which makes available a considerable number of dollars to enlarge the opportunity for the so-called "educationally deprived child". Extreme mobility of population, poverty and affluence existing side by side, racial discrimination and unrest are all contributory to the manifest inequality of opportunity. At one time in our history, the provision for a simple basic education was sufficient unto the need, but that time is past and it is becoming more and more apparent that the national goal for adjusting to provide equal educational opportunity must be recognized as paramount. The concept that every child is entitled to an education geared to his needs and which can accommodate his total potential is abroad in the land today. Since each individual varies greatly in his potential, his motivation, his standards, his social background and his desires, devising an educational program to meet all of the needs certainly becomes a task of supreme difficulty. Providing a total educational opportunity for all students whether they live in a relatively remote area with a small population or in a large urban center, is a task of overwhelming responsibility. Confronting such a task immediately initiates two questions:

1. Can each local school district in the State provide a program which has the possibility of achieving equal educational opportunities for all of its students, when compared to the educational opportunities of the State as a whole?

2. Does each local school district in Nevada have the financial and human resources to provide a desirable educational program on a relatively equal basis with other school districts for all of the school population?

In order to respond adequately to these two questions, it would seem first that the scope and definition of the problem should be investigated, because in order to devise programs to meet the mandate of providing equal educational opportunity, direction must be found to make them efficient and effective in providing services for children.

**II. REGIONAL SERVICE CENTERS MUST BE ESTABLISHED TO FACILITATE ALL PHASES OF PLANNING.**

Over the months of this past year and after discussions and confer-

16/ 17

ences among the members of the State Department of Education, the Advisory Committee of the Eight-State Project, and the Title III Advisory Committee, some deterrents to adequate educational planning and programming were identified and set down. The gist of these conferences revealed that programs which provide maximum efficient and effective services for children require considerable time and effort to plan, develop and implement. It was determined that the dilemma is further compounded because "crash" programming also results in a similar investment of time and effort, only the investment is considerably less productive because resources must be used to resolve problems and conflicts of hastily devised programs. Such management problems precipitate dilution, fragmentation and duplication to the extent that the full benefit of supplemental programs is not realized.

The regional service center was viewed as a possible approach toward meeting the needs of the smaller Nevada school districts. It was also determined that the proposed, or the possible, service centers would also be a benefit to the two larger districts in the State, inasmuch as total coordination could be accomplished through four primary contacts--in other words, through four regional service centers. It was also realized that the ultimate goals in developing such regional services would be the attainment of statewide long-range planning and the coordination of developmental activities for the improvement of education for all children in the State.

Further discussion resulted in a perception that the initial mission of the beginning two regional service centers in Nevada would include planning, and developmental and evaluative services to the fifteen small rural school districts. Each center would serve as a cooperative network of seven school districts with three full-time professional staff. The staffing of each center would provide for a management specialist, an evaluation or research specialist and a dissemination specialist, and that staff should be sought with the following qualifications:

Management Specialist--Training and experience in the areas of systems and operations analyst and instructional management.

Evaluation Specialist--Training and experience in research design, development of behavioral objectives, developing data base information systems, etc.

Dissemination Specialist--Experience and training in technical writing, organization and presentation of data, and dissemination techniques.

The concept of a regional service center in the State is by no means a new idea, but in these last months there has been a very strong indication that there must be an organized and planned effort of sufficient significance to identify problems and to implement programs to solve those problems. The service center represents the best device to do so. Accordingly, action was initiated by the Title III ESEA State Advisory Committee in Nevada.

# SCHOOL DISTRICT ADMINISTRATION

## Exemplar

### MODEL I: A Regional Service Center

The Title III Committee, appointed by the State Department of Education, is broadly representative of educational resources in the State and includes the following people:

Chairman, Dr. N. Edd Miller, President, University of Nevada, Reno

Vice Chairman, Albert Seeliger, Executive Secretary, Nevada School Trustees Association, Carson City

Ray Tennant, Superintendent, Nye County School District, Tonopah

Reverend Cesar Caviglia, Director of Education, Diocese of Reno

Emery Lockett, Nevada Chairman, National Committee for the Support of the Public Schools

Dr. Verdun Trione, Assistant Professor, College of Education, Nevada Southern University, Las Vegas

Stanley P. Jones, Nevada State Labor Commissioner, Carson City

Walter Voorhees, Inter-Tribal Council, Schurz

Carl F. Dodge, Senator, Nevada State Legislature, Fallon

James T. Butler, Executive Secretary, Nevada State Education Association, Carson City

Edwin Jensen, Principal, Elko High School, Elko

Mary Cady Johnson, Vice Chairman, Nevada Council on the Arts, Las Vegas

Dorothy Seigle, Supervisor, Special Education, Clark County School District, Las Vegas

Robert C. Baca, Office Manager, Valley Electric Association, Las Vegas

James P. Kiley, Executive Secretary of the Council, Director, Federal Relations and Programs Branch, State Department of Education

At a meeting in January, 1968, it was decided that the U. S. Office of Education would be requested to extend the application deadline for fiscal year 1968 Title III ESEA applications in order to allow time for Nevada to submit a proposal creating regional centers to improve educational planning. The requested extension was granted and letters of intent to submit a proposal on May 13 were submitted to the U. S. Office of Education by Pershing and White Pine Counties. The idea was presented to the State Board of Education and approval of that body was granted on March 28, 1968. A series of meetings involving certain superintendents from the regions were then held and the general proposal was designed. During this period, plans of other regional service centers in other states, particularly Texas, California and New York, were studied as models. Experts in the field of educational management and systems design were consulted and the legal procedures for establishing regional centers in Nevada were determined. In March a series of small group meetings were held with superintendents of the rural counties to give them an opportunity to contribute to the design of the project and to obtain commitments from them. Superintendents of the two large districts in Nevada, each of which will eventually be considered a separate region, attended these meetings. They gave their endorsement of the project and committed themselves to regional cooperation by agreeing to appoint a member of their staffs to serve on the inter-regional coordinating committee.

In May, a statewide meeting of county superintendents was held and a resolution from this body endorsing the project and calling for its submission was passed.

Finally, committees from the regions were convened to complete the final planning and writing, and state agency assistance in the planning of the proposed program was coordinated by the Nevada state director of Federal Programs in the State Department of Education. The planning for these centers also, at various times, involved all of the divisions in the State Department of Education.

It was determined that each regional service center would have as its primary mission the provision of planning, developmental and evaluative services to the fifteen small rural school districts, and that the initial phase of center operation would focus on assessment and the establishment of a uniform data base.

The professional staff from each center will, therefore, work with each of the cooperative districts in the regional area to identify the data to be gathered for the base line. Since the establishment of a complete data bank could not be accomplished the first year, the school districts and center staff will identify the most critical data necessary for decision-making and confine the retrieval to priority items. Priorities would be established on a cooperative basis between the two centers and the Clark and Washoe County School Districts. If the selected data proved not to have been gathered on a uniform basis, the second phase of the center's operation will be to design instruments for that purpose. These instrments will accommodate data processing requirements.

The third phase of center operation will be to assist districts in utilizing the data retrieval instruments and the staff would have the responsibility of processing data input as it is received. Processing would include the development of within-district, district, and regional profiles. Once the third phase is completed, the beginning of a state base will have been achieved.

Concurrently with the first three phases of operation of the centers, the State Department of Education will contract with an outside agency for the purpose of taking all Federal report forms, analyzing the content of each and developing a single instrument which will contain a composite of items from all separate forms. State department consultants will then further refine the instrument and negotiate with the U. S. Office of Education for acceptance. The State Department of Education will also provide the overall coordination between the centers and the two larger school districts.

Once the data base has been established, consultants in the educational services division of the State Department of Education can begin designing alternative treatments and state plans based upon identified priority needs.

The fourth phase of the center operation will then be direct involvement with the staffs of each school district in the development of comprehensive programs to confront specific problem areas. The staff can assist in developing evaluative, management treatment and fiscal designs so that programs can be implemented without the delays encountered with limited staff and time. Centers will assist in proposal development with built-in audit points (fiscal and program) so that data for decision-making and reporting purposes can be retrieved at regular intervals.

The fifth phase of center operation includes monitoring and data retrieval for dissemination and reporting purposes. The staff is available here for assistance in program realignment and augmentation as evinced through monitoring. As a result of these services, districts would not be faced with the monumental task of trying to complete final year-end reports and making final judgments about the true efficiency of programs.

The sixth phase would be a "recycling" phase as the majority of data collected during the monitoring activity would serve as a base for planning for the ensuing year. Also, during this phase, the center staff would be developing instruments to provide for additional inputs for data base.

In the establishments of such centers and with the cooperation of all school districts, a uniform financial and information system can be developed. Transition to "block-grant" federal aid could then be made in a manner which would provide for maximum utilization and benefits to school children in every part of the State. Similarly, maximum services could be provided by the State Department of Education as specific problem areas would serve in the foundation for service in long-range planning.

It must be understood, of course, that a description of the "phases" of center operation should in no way imply that actual services to school districts would not be almost immediate. Even though the identification of such phases might lead one to understand that the sequence of operation is lineal, the actual operation of the center calls for a continuous recycling and refinement procedure which tests the validity of programs which have come into being, recommends refinement or change in the programs or establishment of different ones to replace those that do not prove to be responding to the needs identified in the baseline data or in subsequently gathered evidence.

In other words, the implementation of actual programs to meet the needs of children as evidenced through sound data gathering techniques can occur almost immediately. The monitoring, evaluation and subsequent amelioration of these programs also becomes a built-in and continuous service sequence of the centers.

Once these regional service centers become operational, and cooperative working relationships have been established for planning and development activities, the centers can become the nuclei for a wide variety of supplemental services which the small districts cannot support individually. A curriculum laboratory could become a part of the center, and teachers from all cooperative districts could meet together during the school year and summer months to develop curricula under the direction and guidance of center specialists. State department consultants and outside consultants retained by contracts could meet together with teachers of a district to plan programs for ensuing years. Seminars and workshops could be conducted to assure quality and continuous progress.

Team-teaching, preschool education, individualized instruction, etc., could be developed and implemented. Such programs certainly could provide the small school district teacher with an opportunity for professional self-improvement and would enable school districts to design continuous staff development programs.

A center with a curriculum laboratory could be expanded to include an instructional materials center. As teachers develop curricula they could also write specifications for various instructional materials (books, transparencies, records, tapes, films, etc.) needed for field testing and eventual institutionalization of curriculum packages. These materials could be made available on a regional basis.

A pupil personnel or a diagnostic treatment team could be added to the center to service all schools in the region plus specialists such as speech therapists, clinical psychologists, psychometrists, child psychologists, elementary counselors and nurses who could service cooperative districts and could become a reinforcement unit for the curriculum laboratory.

Examples of the potential of regional service centers in Nevada can be carried much further. However, immediately, and as has been indicated, the highest priority is comprehensive statewide planning. Changes are taking place in education at an increasing pace. Statewide needs must be developed. Priorities must be established and long-range goals must be specified so that some specific direction for change can guide the efforts of educators. If our present position can be exactly determined, then decisions can be made about what needs to be achieved to respond to the national mandates in education and to make provision for equal educational opportunities for all children.

The two initial regional service centers are presently established in Pershing County at Lovelock and in White Pine County at Ely. The program planning for these two centers have been completed and the individuals have been employed to promote the activities of the centers as outlined above. Each of the centers is located apart from any existing school facility and each of the districts within each of the regions will be recipients of the services. The map immediately following identifies the location of the centers and shows the regions and school districts to be accommodated by them. (See Figure II)

Of paramount importance to the consideration of the regional service center and its activities is the main thesis of devising a strategy to upgrade educational services needed at the school district level, while still allowing for undisturbed local autonomy. The Nevada State Department of Education is convinced that the foregoing outline of strategy allows for exactly that, and that this is a reasonable technique for the years to come. It is recognized that much of what the regional service centers will accomplish must be done through emerging designs, but it is also true that this vehicle is now ready and at hand to utilize good information about schools, school children and teachers to better purpose and for eventual advantage for everyone.

More particularly, the regional service centers will provide a technique for responding to the two basic questions posed earlier in this opus, and here reiterated for consideration:

1. Can each local school district in the State provide for a program which has the possibility of achieving equal educational opportunities for its students when compared to the educational opportunities of the State as a whole?

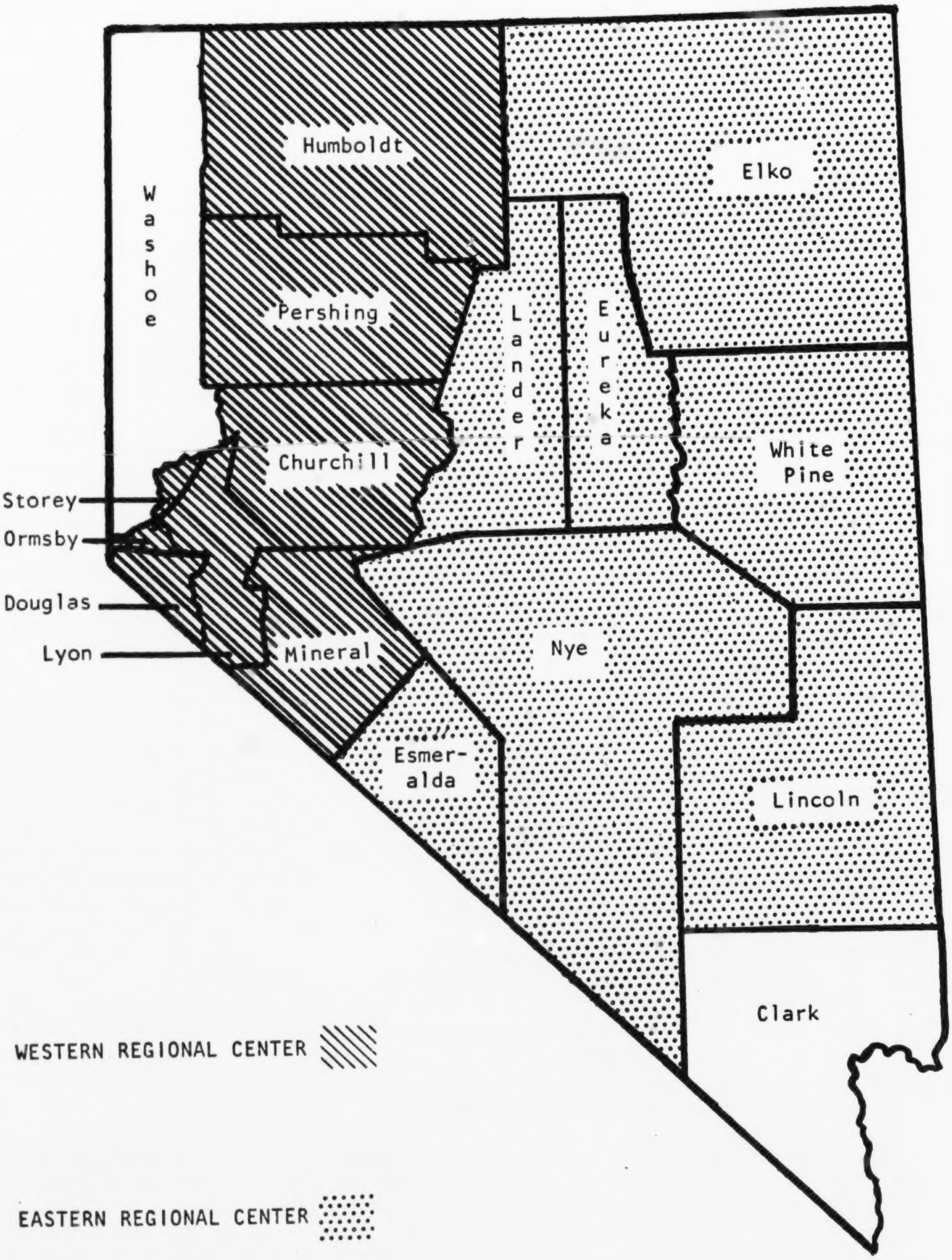

Humboldt
Elko
Washoe
Pershing
Lander
Eureka
Churchill
White Pine
Storey
Ormsby
Douglas
Lyon
Mineral
Nye
Esmeralda
Lincoln
Clark
WESTERN REGIONAL CENTER ▨
EASTERN REGIONAL CENTER ▒

Figure II

2. Does each local school district in Nevada have the financial and human resources to provide a desirable educational program on a relatively equal basis with other school districts for all of the school population?

In addition to answering the above questions, the regional service centers can definitively and positively identify techniques, strategies, and programs designed to meet the mandates of the public education which prescribe equal educational opportunity for all children and youth.

The foregoing represents what is considered to be, by the Nevada State Department of Education, a comprehensive plan for the equalization of educational opportunities for the children and youth of Nevada. This direction and procedure, of course, represents an alternative to the actual broad consolidation of existing school districts. There seems, however, to be a reasonableness in the possibility that certain specific areas might be considered for trial of the technique of consolidation to eliminate problems inherent in the operation of a necessarily small district. One such area is that encompassed by Lincoln and Clark Counties.

Although provision is made in the current laws to enable the establishment of joint school districts between two or more counties in the State, the creation of such a joint school district seems more directly for the purpose of improving administrative and fiscal management than for improvement in educational opportunities for students. Another limitation to the currently available process of establishing a joint school district is the requirement that one of the districts employ 45 or less certificated employees. Another, is that it might call for the creation of a board of trustees of such number that it could be cumbersome and unwieldy.

Since the recommendation here is not to suggest a broad consolidation of school districts across the State, but only to try the procedure in a specific area, it would therefore seem reasonable to suggest that the establishment of a consolidated school district comprising Lincoln and Clark Counties could be accomplished by legislative action under the aegis of the "pilot project" connotation. Precendent for such action is certainly found in the 1956 law which abolished all local school districts and created the present system of county school districts, and in the enactment of the statute relating to community colleges. It also seems reasonable that the pragmatic aspects of financial support need not be considered a barrier since the amount of basic pupil support for each county school district is presently fixed by the Nevada State Legislature. The primary purpose, then, for such consolidation would need to be that of providing a device whereby a professional staff could be utilized to greater benefit for all of the children in the two school districts to allow for increased services, and broadened responsibilities for existing special staff within reasonable distance.

To accomplish this limited trial reorganization at the earliest possible time, it is recommended that legislation establish this new school district as of July 1, 1969, in order to coincide with the budget year. To implement the establishment of the district, the boards of trustees of the two present school districts would be required to meet as early as possible after the enactment of proper legislation, but no later than May 20, 1969, in order to elect, from the combined total, the number of representatives from each county as prescribed in the law.

Such new legislation should be drawn to provide for the experimental program in consolidation but should not require that the present joint school district legislation be repealed at this time. Legislation could provide for this specific consolidation under the following conditions:

1. That it be considered a pilot proposal to extend until the 1973 session of the legislature, at which time it could be confirmed for continuation or repealed.

2. That an interim board of trustees be selected from the boards of trustees of the two present school districts so that the number of members would not exceed nine, and would include the seven current members of the Clark County School District plus two from the Lincoln County School District, selected by the two boards in concurrent action.

3. That the general election in the fall of 1970 allow for the election of a nine-member board--seven to be elected from Clark County, one from Lincoln County and one from the two counties at large--these members to take office on January 1, 1971.

4. That at the time of selection of the original board, the newly constituted board of trustees assume all of the funds, property and obligations of the county school districts incorporated in the new district with the exception of the bonded indebtedness of each district. The bonded indebtedness would remain the obligation of the separate county school districts until decided in the general election of 1970, at which time the citizens of both counties could determine the matter.

5. That the newly established board create and establish policies and procedures consistent with state laws and regulations leading to the enhancement of the educational program of the district.

6. That the combined board establish one county seat of the consolidated school district as an administrative center for the new district and make arrangements for the county treasurer and county auditor of that county to assume the financial accounting for all of the various funds of the newly created district.

7. That during the time of existence of the combined school district, financial resources would include the sum of financial resources for maintenance and operation that would otherwise accrue to each school district as if they continued to be individual school districts.

8. That the board make all other necessary arrangements to utilize the newly expanded resources of the district providing greater educational opportunities for the students in the new district including resources of the regional service center currently serving that portion of the State.

9. That at the general election of 1970, school trustees from the consolidated school district should be elected in the following manner: Four trustees from Clark County at large for terms of two years; three trustees from Clark County at large for terms of four years; one trustee from Lincoln County at large for a term of four years; one trustee serving both counties at large for a term of two years. Candidates for election to the board of trustees as described above should

be required, at the time of filing for candidacy, to declare which terms of office they are seeking. After the election of 1970, the offices of school trustees shall be filed for terms of four years in the order in which the terms of office expire.

Primary requisite to success of such consolidation is, as has been reiterated, the provision of opportunities in a sparsely settled school district that are similar to those in a more populated county. Allowance for such expansion and an increase in offerings seems reasonably inherent in the recommendations made above, and would have implications for additional consolidations in the future.

## THE SCHOOL ADMINISTRATOR

### Present Practices

The organization of the local school had its beginnings in the one-room one-teacher situation. Early education in most of America had its beginning in this setting. Such schools still exist in Nevada because of the obvious factors of isolation by distance. In most areas, however, and because of the considerable growth in population, it finally became necessary to appoint head teachers or principal teachers to coordinate the internal functions of the growing schools and to implement the decisions of the local governing board. Historically, the principal predates the superintendents, but his role, his duties, his responsibilities and his direction have never become as structured and regulated by law. In most cases, the attitudes, the mode of operation and posture of the principal has been left to the discretion of the individual occupying the position. In other words, he has been able to choose almost any road he wishes. He can become so minutely involved in the detailed mechanics of his position that he has little time for anything else. Or he can become an effective instructional leader through a positive and manifest attitude toward that leadership, making him a positive agent for change, a stimulator of staff and a seeker of improvement through in-service training, education, and through personal study and observation.

### Emerging Mandate

I. **THE SCHOOL ADMINISTRATOR MUST PROVIDE POSITIVE AND EFFECTIVE INSTRUCTIONAL LEADERSHIP.**

It is hoped that in the emerging designs for education in the future, that the local school administrator appointed by a board of trustees will accept the role of leadership described above and organize the school under his jurisdiction for the maximum educational effort. Certainly, however, it is recognized that in order to do this, the principal must have time for consideration of his problems, time for planning and time to devise techniques to employ appropriately the use of the human and physical resources placed at his disposal.

He it is who must utilize all the members of his staff in the areas of their special expertise. He it is who must stimulate and direct self-appraisal and self-development among all members of his educational family through the use of his special initiative and imagination. He must also seek specialists from district or state levels who will provide detailed services and advice and counsel to individual teachers, special staff groups and the entire educational proportion in performing their basic duties--educating children.

In organizing or reorganizing any schools, the emphasis must necessarily rest upon the techniques and methods to increase educational opportunities. Principals should be free to consider organizational changes within the schools which would have as a primary emphasis the initiation of improvements of instruction. In doing so, it is entirely possible that a new philosophy for the school may be necessary. A philosophy which would recognize the unique setting of the school, and the special problems of its population. When this philosophy is devised, a realistic set of educational goals for the school can be constructed within the overall framework of state laws and regulations, local school district policies and procedures, and the awareness of national needs and values. The style and tone of this philosophy may take any number of forms, but it should be broad enough to encompass total education and specific enough to identify posture with reference to its discrete parts. For one possible approach to such a philosophy, the reader is invited to glance again at the design for such a document approved by the State Board of Education for its direction and use, and which has been quoted earlier in this document.

When the above has been established, each principal may then turn his attention to the vertical and horizontal organization of curricular sequence, team-teaching, self-contained classroom, ungraded groupings and all of the other creative considerations which might enhance the educational climate of the school.

In those areas where physical space is at a premium, the principal must constantly study alternatives of space utilization by considering the flexibility, mobility and general learning environment of the student. Through technology and its application, such innovations as programmed instruction, educational television, conference telephone communication, and many other such processes of education that hold much promise should be considered.

Whether the principal of the local school is solely responsible for the employment of his staff or only concerned indirectly with selection because of the structure of central office administration, the proper utilization of the staff is his responsibility. His faculty must be welded into a functional unit which will advance the educational potential of the school, and which will constantly be concerned with the essentials of excellence for children and youth. Paramount in the principal's mind at all times should be the comprehension that the educational opportunities of the total school are increased only if he marshalls and uses all of the necessary qualities of leadership to create the best possible climate for learning.

# THE SCHOOL ADMINISTRATOR

## Exemplar

### MODEL I: Changes and Patterns for Leadership

The foregoing proposes that the role of the principal in the State of Nevada must be one of educational leadership primarily, and that he must be the precipitator of change--a change agent--in an educational system which must function rationally in the present and project creatively toward the future. It seems reasonable, then, that each principal of every school must assume the major responsibilities which follow along with the necessary leadership and organizational astuteness for implementing them. Nine of these charges are listed below, with some suggestions for their implementation:

1. Establish procedures for continuous evaluation of the specialized learning programs and the general educational effort of the school in order to determine where and when change is necessary

    1.1 Establish evaluation committees
    1.2 Lead in the development of criteria for evaluation
    1.3 Assist in the development of methods of evaluation
    1.4 Examine the results of evaluation objectively
    1.5 Consider continuously possible changes for improvement

2. Stimulate actively the development and organization of curricula suited to each student's needs

    2.1 Develop research projects in different subject areas and grade levels in an effort to improve instruction
    2.2 Encourage teachers to use a variety of instructional techniques
    2.3 Encourage flexible grouping of students to provide for individual differences
    2.4 Seek new teaching aids to make instruction in specific subject areas more meaningful
    2.5 Suggest special instructional projects
    2.6 Stimulate children in any given classroom to work on worthwhile individual projects
    2.7 Encourage teachers to develop student participation

3. Recognize and make use of the principle that curricular changes will be more effective when there is active participation in the planning and implementation of change by the entire professional staff

    3.1 Establish the attitude that collective and cooperative thoughts and actions are more conducive to success than is individual thoughts
    3.2 Recognize that the responsibility for implementation of the curriculum rests with the staff
    3.3 Plan faculty meetings in cooperation with staff members
    3.4 Be sensitive to feelings and reactions of the staff and students
    3.5 Coordinate the teaching efforts of the staff
    3.6 Enlist the aid of teachers in establishing selection standards for new textbooks and other instructional materials
    3.7 Encourage staff participation in decision-making

   3.8 Develop a high standard of morale through positive, respectful human relations practices

4. Establish carefully formulated policies for the staff and students, allowing for the flexibility necessary in the consideration of ideas from either group

   4.1 Publish statements of general policies
   4.2 Evaluate policies periodically, through staff cooperation
   4.3 Be certain that policies promote positively the welfare of the school and the total group
   4.4 Examine carefully differences of opinion which arise in either interpretation of policies or the philosophical base

5. Develop procedures of teacher evaluation which are designed primarily to stimulate each teacher's professional growth and instructional effectiveness

   5.1 Respect the feelings and dignities of staff members
   5.2 Attempt to develop each staff member to his greatest capacity as a teacher
   5.3 Help to develop competent leadership and responsibility in staff members
   5.4 Give recognition to each improving member of the staff for a feeling of success and impetus for continued improvement
   5.5 Set up arrangements for the exchange of professional ideas
   5.6 Compliment teachers whenever possible
   5.7 Have the courage to dismiss a teacher when comprehensive, objective evidence shows that the individual concerned is ill-suited for teaching

6. Establish leadership primarily on the basis of ability and professional contributions rather than upon the authority derived from an official title

   6.1 Help staff members obtain better working conditions
   6.2 Encourage professional scholarship within the staff
   6.3 Avoid the use of threats or sanctions in dealing with any individual
   6.4 Encourage the staff to assume responsibilities for the entire program of the school
   6.5 Recognize the individual expertise of each staff member and utilize it
   6.6 Seek advice from staff members
   6.7 Enlist the aid of the staff in developing criteria for the selection of new teachers
   6.8 Encourage staff members to seek promotion
   6.9 Delegate authority to staff members, whenever possible
   6.10 Promote the welfare of the school as a whole at all times

7. Attempt to minimize personal weaknesses in leadership, experience, and knowledge by professional growth through advanced training, participation in educational conferences, in-service training, and other appropriate professional involvement

   7.1 Participate in in-service training programs
   7.2 Attend educational conferences

7.3 Enroll in advanced training programs at the university graduate level
7.4 Visit other schools
7.5 Read widely in current affairs and current educational developments
7.6 Maintain active membership in professional organizations
7.7 Set an example of professional growth for the professional staff

8. Develop an expertness in written and spoken communication which is distinguished by its honesty and meaningfulness to the staff, the students and the community

    8.1 Conscientiously inform students of changes in procedures, school projects and related activities
    8.2 Inform the staff regarding plans, responsibilities and activities that affect them in any way
    8.3 Encourage frank expression of opinions in order to establish two-way communication
    8.4 Interpret the school program to the community
    8.5 Accept the challenge of speaking before groups such as the PTA, service clubs and other civic organizations
    8.6 Attempt to develop clear, coherent and dignified written communications
    8.7 Communicate with critical individuals in a forthright and objective manner

9. Create within the school an atmosphere that stimulates and respects the rights of teachers and students to be imaginative and creative in activities arising from the exchange of ideas, while understanding that such exercises of freedom must be supported by responsibility

    9.1 Make education the first priority of the school
    9.2 Stimulate thinking
    9.3 Encourage scholarship in the staff and students
    9.4 Arrange the maintenance and operation of the physical plant in order to establish an environment conducive to learning
    9.5 Attempt to develop social awareness at a level comparable with technical knowledge
    9.6 Establish empathy for the sensitive, creative or unusual child
    9.7 Practice functional democracy within the school
    9.8 Develop student government to give students the freedom and responsibility they are mature enough to handle
    9.9 Impress upon the staff and students that dissent without responsibility is not a democratic process

Leadership is an extremely tenuous quality and difficult to define. It is a quality which we must expect of all school administration and, particularly, of the principal.

Mere administrative ability does not necessarily carry with it the prerequisites of leadership. Administrative ability many people and agencies have. It is usually merely facilitative and only instrumental. It gets acceptable or familiar things done. It is a stabilizing force. There are custodial boards of education and individual educational caretakers who are gifted with such abilities, but they do not lead. Leadership ability is perhaps somewhat abrasive and it influences other people to do the things they ought to do even when they don't want to. Leadership ability is creative and innovative and points to a way. Good administrators have the capacity to expand and develop other peoples' ideas and plans. Real leaders create them. Administration is a science. Leadership is an art. Administrators react to change. Leaders dominate it. Leaders, both governing bodies and individuals, recognize the compelling truth--to change is to progress. To change is to move closer to perfection. In qualifying these two component capabilities, certain discernable contrasts are revealed. These contrasts exist and make possible an identification of the difference between skill and ability.

Skill is the capability to accomplish something which is not particularly easy. Ability is the capacity to accomplish things, mainly though the effort and skill of other people. The violinist has skill--the conductor has to have ability as well. Leadership is the art of so indicating a distant goal as to make all else seem trivial and a principal in developing this art of indicating distant goals certainly acquires what has been called the "nerve of failure". Only leaders have it. Having boldly confronted the difficult issue and devised a promising solution, they have the fortitude to carry it out, knowing in advance the probability of public reproof and criticism and the certain consequences of failure. Real leadership recognizes that there are no riskless choices.

Such leadership can be secured and maintained only when the school principal understands his role and the fundamental purpose of the institution of which he is the nominal leader through appointment. From this concept of educational leadership, the principal must make decisions which are in the best interests of education of children and youth, while at the same time considering the broader organizational goals and societal values. This effective leadership at the local school level can then make educational decisions in an objective and an enlightened manner. Even while under the pressure of outside influences which may distort, threaten or divert. Neither personal aggrandizement nor fear have any place in this kind of needed--desperately needed--leadership.

# Section II

# Curricular Patterns

# PRE-SCHOOL EDUCATION

## An Introduction

The first five to seven years of a child's life are crucial years for learning and for setting behavior patterns that exert significant influence upon the individual's later life. Consequently, the young child's experiences are of indelible importance, not only for his intellectual development, but also for his social, emotional and physical development.

Numerous studies relating to the learning and intelligence of infants and young children are pointing out the tremendous significance of early experiences. Bruner found that infants on the day of birth could track a triangle with their eyes.[1] Lipsett and staff have shown that day-old infants can actually discriminate between a variety of sounds and smells.[2] Bloom informs us that the child by the age of six has developed as much as two-thirds of the intelligence he will have at maturity.[3] J. McVicker Hunt, another psychologist, tells us that intelligence is not a fixed trait at birth, but that the child is born with an intellectual potential, and that if we reach children early enough, we might raise the average level of intelligence by about 30 points of I. Q.[4]

If we believe that the young child's astonishing capacity for learning commences at birth, it would seem imperative that our society provide an environment that would assist each individual child to an early realization of his potential. A good pre-school or pre-kindergarten program is one way of accomplishing this.

At the outset, it will be necessary to state early not only what pre-kindergarten education is, but also, what it is not. It is not a teacher talking to thirty children seated at thirty desks. Rather, it is two or more adults working with and guiding the learning experiences and activities of approximately 15 children who may be working individually or in small or larger groups. It is not assigning a child to a particular "ability group." It is assessing each child individually and providing for learning activities in work and play to suit his unique needs. It is not grading children with A, B, C, D, or F's or periodically issuing report cards. There are no report cards, instead, the child is compared with his own growth status and progress. Facts per se are not the curriculum. The content of the program is more concerned with the process, discovery and setting the stage for learning than with subject matter.

Pre-kindergarten education is not punishing a child for "bad behavior" (whatever that is). It is helping the child to know limits and expectations and then providing the kinds of experiences that will promote acceptable behavior. It is not merely a downward extension of first grade or kindergarten. There are stages of steps in the learning process, and the program is flexible enough neither to hold back an individual child in his progress nor to demand learnings beyond his current capacity.

---

[1] Maya, Pines, Crucial Years for Learning, Harper & Two, New York, 1966, p. 170

[2] Early Learning Right in the Crib, Life Magazine, March 31, 1967, p. 43

[3] Pines, op. cit., p. 32

[4] John Kord Lagemann, Can We Make Human Beings More Intelligent?, Readers' Digest, May 1966

It is not a reading program, nor does it equate reading with education. A child may learn to recognize letters or words or even learn to read, but only as a by-product of the overall program. It is retaining the innate desire to learn in which learning remains a challenge, a satisfaction, rather than a burden or drudgery imposed upon the child so that he feels pushed or prodded beyond his abilities.

A good pre-kindergarten education program will take the young child where he is and be instrumental in making him a more productive member of his society. Therefore, it is vital that we understand and set up a good program. The following divisions of this paper have been written to serve as guidelines to accomplish this aim.

# PRE-SCHOOL EDUCATION

## Present Practices

Education below the kindergarten level in Nevada has not been and is not now a State function. The three-and four-year-old children who have received some type of nursery or pre-school experience have done so in private or parochial schools. This situation has been common nationwide until recently, when two divergent but significant factors relative to pre-school education have become apparent. One is the disparity in background knowledge and the general readiness to learn of children entering the first grade. The other is the realization, substantiated by general research and particularly by behavioral psychologists, that the minds of very young children have a greater capacity for learning than heretofore realized. These two factors, have led some states to propose that public school education begin at an early age, when intellectual growth and the learning process are beginning to focus naturally.

Presently, the extent of public pre-school education in Nevada is governed and regulated by State school statutes which make no provision for enrolling three-and four-year-old children and which, indeed, give Boards of Trustees the power to exclude from school all children under the age of six. The nature of these laws has caused pre-kindergarten education, except for a few programs which are funded by State Welfare, to develop as non-public nursery schools and day-care centers. Most pre-school education in Nevada during the past 20 years has been carried on and financed by private, parochial, or other non-public agencies.

These pre-kindergarten programs present considerable confusion in the name and in the classification. They are described variously as nursery schools, day-care centers, child-development centers, child-care centers, day-nurserys and play-schools. Regardless of name or classification, the pre-kindergarten programs in Nevada (except for Headstart) are licensed by the State Welfare Department, and are supervised thereafter by the Welfare Departments in Clark and Washoe Counties, and, in the rural counties, by the State Welfare Department. The term "group-care facility" is reserved for those programs providing care for 7 or more children. Generally, these groups involve the term "nursery" in naming the facility. If less than 7 children are involved, the term "family child-care" is assigned. There are 20 licensed "group-care facilities" in Washoe and Clark Counties which care for an estimated 110 children during the day and 44 children at night. In the same counties, there are 89 family child-care facilities caring for 233 children during the day and 68 at night. This represents, of course, a very small proportion of the total number of potential pre-school students.

The Headstart Program, one phase of the Economic Opportunity Act of 1964, has incorporated a vigorous combination of community-oriented activity, scholarship, and the specific application of federal funding. The program is designed to alleviate the recognized handicaps of pre-school children coming from economically and culturally disadvantaged families. The assessment of their needs reveals that many of these children lack the necessary basic speaking and listening skills to make themselves understood or to enable them to hear and comprehend. They have had, moreover, such limited experience in the use of paper, pencil, crayons, scissors, and toys that they are unable to adjust to and become constructively involved in a typical classroom situation. Since these problems related directly to the family and to the social environment, as well as to the school and to an unfamiliar group of peers, Headstart was designed around the concept of the child-development center. Programs involve parents, children, and a staff professionally trained in education, health, sociology and psychology.

Nevada's Headstart programs are operated by the Inter-Tribal Council of Nevada, Community Action Program in Clark and Washoe Counties, and a rural Community Action Program which serves the 15 other counties. With the exception of one year-round program in both Washoe and Clark Counties, Nevada groups have concentrated on short term summer Headstart Programs usually for those children who will enter school in the fall. The Director of Headstart, Rural Community Action Program, states on the first page of the preface to the 1967 Final Evaluation Report that 273 children from the 11 rural counties participated in 15 classes during that summer. The report further proposes annual Headstart programs, more participation in Upward Bound program, designed for enrichment and awareness, by rural students, and follow-up programs in the primary grades for students who have been in Headstart. The Headstart program has provided a major impetus for pre-school education because it focuses on a large segment of those children most in need of this service.

The pre-school music, language, art, and science experienced of children in Nevada varies widely because it is presently dependent on the opportunities provided in individual homes and (except for certain federally funded programs) in privately selected, organized, and financed nursery schools. The influence of the content of commercial television programming is only beginning to be explored at the national level, even though television in the home is becoming one of the most pervasive verbal and musical influences during the early childhood years. Certainly it can be said that music, language, art and science play a less significant role than they should in the lives of Nevada's pre-school children.

Generally in Nevada, the pre-school physical, social and emotional readiness programs and exposures vary widely since they are provided in the home unless the child is enrolled in a day-care, nursery school, kindergarten, Headstart or other programs. Some degree of occupational awareness may occur in story-telling, imaginative play schemes or manipulative play experiences. Rudimentary occupational information is available also through the medium of television, but to date, the effect or influence of this source of information remains unexplored. Therefore, regardless of the presence of one or more of these influences in pre-school programs structured opportunities for developing occupational orientation is at best through vicarious experience.

At present, only two of the seventeen counties have Special Education programs for children of pre-school age. The Clark County School District, in cooperation with the Nevada State Department of Health, Welfare, and Rehabilitation employs one teacher to work at the Special Children's Clinic in Las Vegas and two teachers who serve the pre-school deaf children (3-6). The Washoe County School District employs two teachers who serve children at the pre-school level. One teacher works with three deaf children at the pre-school age, the second teacher is a certified speech therapist and her services are utilized full-time serving children with pre-school language problems.

The earliest general public public education presently provided by the Nevada Law is at the kindergarten level. NRS 388.060 gives school districts permission to establish, equip, and maintain a kindergarten program when petitioned by parents or guardians of 25 or more children who are eligible to attend. This statute further regulates a kindergarten program by requiring an average daily attendance of more than 15 students who will be 5 years old by December 1 and therefore, eligible to enroll in the first grade the following year. Because the establishment of kindergartens is not mandated by statutes, kindergarten is not available to all children in Nevada despite attendance figures that more than doubled in the past decade. By 1967, only four counties in the State did not offer kindergarten education. However, even in counties offering kindergarten in their population centers, such education services were not generally available in the rural schools where they are especially needed.

The kindergarten curriculum has reflected in most areas an awareness of the learning potential of the young and of the importance of social- and self-awareness. Sarah Hammond Leeper states: "The emphasis now in the kindergarten is not on preparing the child for first grade or looking to the next year, but rather upon helping him to live richly and fully as a five-year-old. Recent research indicates that this type of program is the best preparation for being six."[1]

---

[1] Sarah Hammond Leeper, Ruth J. Dales, et. al., Good Schools for Young Children, New York; MacMillan Company, 1968, p. [illegible]

## PRE-SCHOOL EDUCATION

### Emerging Mandates

THE OVERALL MANDATE FOR PRE-SCHOOL EDUCATION IN NEVADA IS FOR THE ADOPTION OF A LONG-RANGE PLAN WHICH CAN BE IMPLEMENTED IN AN ORDERLY MANNER SO AS TO PROVIDE PUBLIC EDUCATION FOR ALL THREE-, FOUR-, AND FIVE-YEAR-OLDS WHOSE PARENTS WISH THEM TO ATTEND SUCH CLASSES.

Without infringing upon the right and responsibility of the home and family to train and rear the young, programs must be designed to foster the social, emotional, intellectual, and physical growth of the child.

It is proposed that the mandate for early childhood education is implemented in three orderly stages. These stages take the form of subsidiary mandates designed to implement the establishment of universally available education for three-, four-, and five-year-olds in Nevada.

STAGE ONE - Immediate

1. Prepare legislation to allow school districts to provide kindergarten education for areas where fewer than 25 children would enroll and where the average daily attendance would be less than 15.

2. Encourage and assist school districts to assess kindergarten facilities to insure that they are adequate in number and location to enroll all children whose parents desire kindergarten education for them.

3. Support federal programs funded by the offices of Economic Opportunity and by the Elementary and Secondary Education Act, strengthening the role of the Department of Education as coordinator of these programs.

4. Prepare legislation which would provide appropriations to be used as State incentive grants to school districts to develop models of quality experimental kindergarten programs particularly in economically disadvantaged areas.

5. Support the University of Nevada in developing and expanding the child development center and in other ways support the implementation of career and in-service training programs.

6. Support the Welfare Department in licensing nursery and pre-school programs, extending consultative services as required.

7. Develop evaluation models for assisting and improving kindergarten and other pre-school programs in order to establish concrete evidence of the effectiveness of pre-school education.

8. In cooperation with school districts, welfare departments, PTA, and other interested groups advance the public information program explaining the values of pre-school education, reporting the results

of programs in progress and supporting proposed programs in order to communicate to the advantages to be gained from education of pre-school children.

9. Through the school plant facilities branch of the Department of Education, develop guides for appropriate sites in construction of pre-school facilities.

STAGE TWO

1. Prepare legislation which would permit school districts to offer pre-school education for all four-year-olds.
2. Assist extension of programs for pre-service and in-service training of professional and nonprofessional personnel required to staff pre-school programs.
3. Establish and continue appropriations for State incentive grants for model or quality experimental pre-school programs in economically disadvantaged areas.
4. Continue previous programs of federal and local support, public information, and research.

STAGE THREE

1. Prepare legislation which would permit school districts to offer pre-kindergarten education to all three- and four-year-olds.
2. Assist in the implementation of the legislative mandate for the establishment of such pre-kindergarten programs.

* * *

In addition to this overriding mandate, there are other subsidiary and specific areas concerned. The following mandate represents such concerns for present as well as projected pre-school programs:

I. THE PROGRAM MUST PROVIDE EXPERIENCE IN LISTENING TO AND SPEAKING STANDARD ENGLISH.

Such experience is fundamental to all communicative skills, and a necessary prelude to reading.

II. THE PROGRAM SHOULD DEVELOP AWARENESS OF BASIC MATHEMATICAL CONCEPTS.

A child should understand such concepts as "how much, how many, how far, and how tall." He should have practice in adding objects to and taking objects away from like objects.

III. PRE-SCHOOL SCIENCE PROGRAMS SHOULD AID THE CHILD TO BECOME AWARE OF HIS NATURAL SURROUNDINGS AND SHOULD STIMULATE HIS CURIOSITY ABOUT HIS ENVIRONMENT.

The schoolroom should become a focal point for the child's endless interest in insects, animals, rocks, and other natural phenomena.

IV. A STRONG EMPHASIS SHOULD BE PLACED ON MUSIC IN THE NURSERY SCHOOL.

This can be facilitated through the development and use of materials designed to specifically for the pre-school years, and by provisions of music specialists to direct and teach nursery school music programs. According to the most significant and far-reaching study of music education in many years, the 1967 Tanglewood Symposium Report, "The optimum ages for developing musical interests, skills, and attitudes of young children are now viewed as being 3-11".

V. STUDENTS SHOULD BE LEAD TO DEVELOP THEIR SKILL AND THEIR PLEASURE IN ART.

The program should aim at making the child acutely sensitive of shape, color, proportion, and of the highly personal language of art. The value of artistic activity in the development of eye-hand coordination make an extensive program especially valuable to the pre-school child.

VI. THERE MUST BE EARLY IDENTIFICATION AND DIAGNOSIS FOR HANDICAPPED CHILDREN.

In order for the public schools to become aware of the existence of handicapped children, a program of acquisition and dissemination of diagnostic information between related, and fund agencies and school districts must be firmly established. Until this occurs, it is impossible to establish or develop satisfactory pre-school programs for the handicapped.

VII. SPECIAL PRE-SCHOOL EDUCATIONAL PROGRAMS FOR HANDICAPPED CHILDREN MUST BE DEVELOPED.

A total program of special education must begin with the family in the community. To do this effectively involves the selection, blending and use, in proper sequence and relationship of the medical, educational and social services required by a handicapped person to minimize his disability. This must start at the pre-school level or at the earliest possible time in the life of the individual child.

VIII. GUIDANCE PROGRAMS SHOULD BE CONCERNED PARTICULARLY WITH THE FOLLOWING:

A. The encouragement of social-emotional readiness for learning cooperative tasks and for the development of constructive social values.

B. The orientation of the child toward attitudes of self-acceptance and healthy adjustments to his new environment.

C. The assessment and evaluation of the individual child and the initiation of records which will facilitate the development of effective individualized programs.

D. The placement of the child in the programs which will result in the greatest possible benefit to him.

## IX. THE CHILD SHOULD BE MADE AWARE OF THE WORLD OF WORK AND OF THE INDUSTRIAL COMPLEX IN WHICH HE LIVES.

Stories and discussions about the several occupations can help the child to understand social contributions of those who work and to develop healthy and positive attitudes toward work.

# PRE-SCHOOL EDUCATION

## Recommended Exemplars

### MODEL

Education of the four- and five-year-old child has gained prime attention and concern throughout Nevada. Headstart, sponsored by the Office of Economic Opportunity, Nevada's Rural Community Action Program, and local school boards have contributed greatly to the increasing importance of pre-school education. Kindergartens have been established in many of Nevada's 17 counties and continued emphasis needs to be given to kindergarten education. However, pre-school education should neither begin nor end with kindergarten programs, for life patterns relating to attitude, moral judgments, and learning are formulated in the years between 2 and 4. Thus, it becomes necessary for the professional educator and interested lay personnel to reconsider the role of public education. It would seem obvious as well as demanding that education in the State of Nevada take its leadership role in establishing public school education for all four- and five-year-old children in the State.

Any program which would be of benefit to four-year-old children must possess a counter balance of the four basic growth patterns. These four areas of social, physical, intellectual and creative growth must be incorporated into any educational program under consideration.

### Social Growth

Nevada is unique in that with the exception of two major metropolitan areas its population is primarily located in rural areas and small towns. Children are family centered and have developed their social patterns around the family group. The small town offers the child the equivalent of a large family group.

Children need to learn to establish personal relationships with an ever-increasing circle of other persons. Children need to develop inter-personal relationships with the adult world. In this time of upheaval the young child needs to develop life patterns of social acceptance with both adults and children. With his own age group, what a child does stands on its merits. He learns what responses different kinds of behavior provoke in his peers--the kinds of behavior that provoke pleasant or unpleasant social relationships.

The teacher keeps supervised play experiences short and provides the right mixture of correction and understanding which encourages the child to attain self-discipline. The following steps promote socially acceptable behavior:

1. First steps in socialization are taken as child is ready.
2. Children are helped to understand and accept the behavior of others.
3. Pleasurable interaction with peers is fostered through developing skills and interests.
4. Acceptable social approaches are suggested to a child who lacks them.

5. Unacceptable social behavior is redirected.
6. Teasing behavior is devalued.
7. Constructive behavior is valued.
8. Competition is de-emphasized--cooperation encouraged.

## Physical Growth

Since our world might best be described as sedentary and since learning has an interdependence on physical ability, it becomes necessary for any pre-school program to place a great deal of emphasis on motor control and muscle development. Development of motor control must follow four patterns: sensori-motor, large muscle, small muscle and eye-to-hand coordination. Learning activities are developed which will lead to the desired muscle development which include the use of specialized materials.

At all ages there are intricate relationships between motor, speech, intellectual and emotional behavior. These suggest that motor behaviors be developed in terms of the individual's total behavior and life history, rather than in a disassociated series of age and sex related hop, jump, run sequences.

## Intellectual Growth

Many clues have been provided to effective ways of developing the intellectual potential of young children. Among these are giving children opportunities to learn from their own experience, to generalize in their own words what they have learned, and to deal with problems just a little different from and more complex than those they have already solved. Educational strategies that incorporate these general principles include using educational play materials and games and developing the educational content from children's play.

The pre-school program is concerned with two major areas of mental growth. These are language and quantative thinking. Pre-school children are living in a verbal world, a world where language ability determines future success. Pre-school programs are designed to increase the child's verbal ability. The child's word combinations are concerned with the here and now. They have a telegraphic character, with nouns and verbs predominating. Two-word combinations are increased by using all possible combinations of the words he knows. That learning his native language is an inventive process and not merely a matter of imitation is evident in the young child's induction of rules and his errors of over-regularization of plural and past tense forms like "sheeps" and "buyed."

A progression from simple to more complex differentiation and learning is apparent in his progressive use of word order, in his increasing use of nested constructions and transformations, and in his ability to use grammatical rules based on more than one differentiation--such as a different plural form for a mass and count noun (sheep and cups). Throughout this development he is greatly helped by understanding the meaning of words and by his intensive self-imposed practice. Biological and environmental factors greatly influence language.

Other ways in which young children's use and understanding of language can be fostered are through responding to and encouraging their speech; through imitation and expanding their early telegraphic word combinations; through jingles and games that play on use of words; and through providing a good speech model.

A young child's language fulfills many functions. It accompanies and later substitutes for his motor activity; it marks out what is relevant in his environment, thereby conditioning his social outlook and his thinking processes. Children who have no experience with words that establish or qualify relationships also lack experience in thinking this way. However, though speech conditions a child's thinking and structures his activities, words must first become meaningful as a result of experience. The relationship between language development and sensori-motor experience is a circular one. A child's language influences not only how he thinks but also how he feels. A child who cannot express his feelings in words may be more given to acting them out.

Experiences are provided in naming and classifying, in rhyming words, homonyms and antonyms. Children are given many opportunities to talk and listen. Story telling and dramatic play are integral parts of any program.

Children need to grow in the ability to distinguish size, number and order in quantative thinking. The vocabulary of the quantative world must be understood as well as the ability to count and distinguish number and size. Experiences and materials are required using counting tools, size weight, cylinders, and actual number experiences constructed around classroom situations.

### Creativity

Now more than

Now more than ever before in our history, creativity and its ramifications are occupying our attention. The incredible advance in knowledge has placed us in a position where creative approaches to physical realities as well as to the problems of complex human relationships can mean the difference between survival or annihilation. Stimulus for creativity advances the fullest development of an individual, making it possible for him to adapt to new and unusual situations. The development of creativity should be a definite aim carefully cultivated by the schools. Since the pre-school years are the most impressionable it would therefore follow that pre-school education should offer maximum opportunities for the development of creativity.

To insure as nearly as possible the realization of objectives emphasizing creativity, certain general principles of learning must be kept in mind; these are:

1. Opportunity to practice the behavior of the learning objective.
2. Opportunity to use the content of the learning.
3. Desired behavior must be within the range of opportunity for the individual.
4. The behavior satisfies the learner.
5. Many experiences can and should be used to attain the educational objective.

6. One learning experience contributes to another.

7. A learning experience develops attitudes.

## Staff

Today's multifaceted pre-school, with the accompanying demands for education of the total child, demands innovative approaches to the pre-school setting. New approaches must be considered in personnel, class size, physical plant, parent education and age of children to be served.

We would propose that personnel for the pre-school experience be both professional and paraprofessional. The adult child ratio should be as small as possible if we are to provide the individual instruction so desperately needed at this level. An adult-child ratio of 5-1 should be maintained, with a teacher-child ratio of 20-1.

A multidisciplinary approach to the professional staff is needed. Specialists trained in Early Childhood Education development are needed as teachers, with additional professional staff from the fields of social work and nursing. It is equally desirable that a specialist in counseling be available as either full or part-time staff member or place on a retainer as consultant.

Paraprofessional staff should be drawn from the parent, senior citizen, teenage, and adult volunteer groups.

It will be necessary to develop certification for teachers working in pre-school education. As the gap widens between the early years of school (pre-school through age 8) and the intermediate years, the development of special training techniques and certification requirements are imperative.

## Classroom

Young children require more actual space than do older children. The normal developmental and learning activities prescribed for a pre-school program stress the need for a large, well-lighted and well-ventilated room. The many activities conducted on the floor make carpeting highly desirable and the best floor covering when cost and maintenance are considered.

Desks are not desirable in a pre-school classroom as learning activities for this age group are not desk-oriented. However, child size, movable and stackable chairs and tables are needed for the learning process.

## Curriculum Development

While there are many developments taking place in early childhood education, this author would support an eclectic approach to the pre-school curriculum. There is great need to continue our emphasis on the physical-social development of young children. However, additional emphasis must be given to the development of the young intellect while fostering creative growth. Any curriculum for young children must be designed only after the developmental patterns of the age to be served have been fully and elaborately considered. A good balance between all areas of development must be maintained.

Learning in the pre-school must be child-centered. Yet teachers of this age group must direct experiences so that optimum development is achieved. The pre-school must have both spontaneous and directed activities. While we must always have as our guide that "play is the business of children" and realize that play is their major vehicle for learning, the teaching-learning process will include a well-planned, organized set of goals to be accomplished.

This author would suggest that some of these goals might be:

CREATIVE--

To further originality and independent thought.

Activities--

All activities of the pre-school lend themselves to this area if the teacher is responsible and provides for freedom of thought. Creativity must be encouraged for it cannot be taught.

PHYSICAL GROWTH--

A. The development of large muscle systems.

B. The development of eye-to-hand coordination and small muscle systems.

Activities:

| | | |
|---|---|---|
| Gross Motor: | Skipping | Running |
| | Marching | Bike riding |
| | Swimming | Jungle Gyms |
| | Climbing | Hopping--alternate fast, both feet |
| | Balancing | Large blocks |
| | Dancing | Rhythms |
| Small Motor & Eye-to-hand | Clay | Puzzles |
| | Felt Board | Fit together |
| | Scissors | Put and place |
| | Construction | Clothing (fasteners) |
| | Easel | Stringing device |
| | Paste | Peg boards |
| | Small blocks | Parquetry blocks |
| | | Housekeeping tools |

INTELLECTUAL--

A. Language development

B. Quantitative thinking

Activities--

A. Increase speaking and listening vocabulary by word games which develop oral-aural language including nouns, verbs, adjectives, adverbs, rhyming words, phrases, sentences, paragraphs.

B. Rote counting 1-10.

1-1 number correspondence through 5.

SOCIAL--

To develop the awareness of social responsibility.

Activities--

Housekeeping, snack times, sharing, show and tell, discussion, outdoor play.

## PRE-SCHOOL ACTIVITIES AND THEIR VALUES[1]

| ind of Activity | Equipment Required | Value for the Child | Parent Participation |
|---|---|---|---|
| limbing<br>upporting one's eight | Climbing apparatus; large packing boxes; barrel, rope, stairs, ladders, horizontal and parallel bars | Encourages coordination of large muscles and releases physical energy and feeling of aggression | Arranges equipment to allow adequate space for free and creative activity |
| unning, chasing, hrowing, kicking, unching | Space free of equipment; ramps, runways, mounds, balls, beanbags, punching bags | | Mentions limits which insure safety and group participation<br>Offers physical support when encouragement is needed<br>Watches for fatigue and restlessness and redirects energy of children when desirable<br>Rearranges equipment to offer new interests and challenges<br>Encourages children to put away equipment |
| alking, sliding, rawling | Posture boards, boxes, steps, hollow blocks, slide, tunnel<br>Any safe surfaces | | |
| waying and winging rhyth- ically | Rhythm boards, swings, bars | | |
| aining strength nd skill | Tricycles, wagons, wheelbarrows | | |
| igging and ardening | Sturdy junior garden tools, sand shovels, cans, spoons<br>Designated areas, sandbox | | |
| sing small toys | Form boards, puzzles, peg boards | Imaginative exploration of adult activities | Arranges materials on low tables and open shelves easily accessible to children |

[1] The starting point for this table was a table in "Parent Nursery Schools", a mimeographed report-manual prepared by a committee for the Berkeley Public Schools, July 1951.

| Kind of Activity | Equipment Required | Value for the Child | Parent Participation |
|---|---|---|---|
| Sandbox construction | Shovels, containers, trucks, cars, trains, planes, boats | Development of small muscles, finger manipulation, and eye-hand coordination. Supply quiet activity for child needing individual play, experience in spatial relationship | Supplies minimum amount of direction as children make selection<br>Provides tables and chairs as needed<br>Offers simpler but similar materials when maturity level prevents child from being successful<br>Redirects energy to more active play when child indicates need<br>Mentions limits which insure safety<br>Encourages putting away<br>Sits near restless child<br>Listens attentively as teacher works with children |
| Building with blocks | Solid blocks, hollow blocks, building boards, trains, airplanes, farm animals, cars, trucks, cash register | | |
| Working with wood | Work bench, variety of wood pieces, hammers, large-headed nails, saws, vises, cloth pieces | | |
| Water play | Boats, short hose, funnels, troughs, containers, wash board, clothes line | | |
| Planning, evaluating | | Participation in democratic group processes | |
| Pounding, patting, kneading, | Clay, wet and dry sand, mud, finger paint, various textures | Opportunity for self-expression | Offers a minimum amount of direction as children use materials |
| Painting, crayoning, pasting | Easel paints, water, paste, and colored paper<br>Crayons<br>Chalk | Hand and finger manipulation<br>Use of a medium with a tool | Sets simple standards such as suggesting the wiping of a brush on side of container after dipping in paint<br>Emphasizes the experience rather than the product<br>Shares child's satisfaction |

| Kind of Activity | Equipment Required | Value for the Child | Parent Participation |
|---|---|---|---|
| | | | Labels paintings, writes child's comment upon them<br>Stores products for safekeeping<br>Encourages children to put away equipment |
| Singing, dancing, listening to music | Simple songs, drums, shakers, rattles, bells, tone sticks, records, piano, or other instruments<br>Music of various sorts<br>Dress-up hats | Experience in rhythm<br>Experience in listening<br>Experience in singing<br>Awareness of melody and rhythm<br>Spontaneous musical expression<br>Dramatic expression | Uses special talents to encourage children in musical experience<br>Encourages spontaneous and informal responses<br>Encourages children to experiment with instruments and equipment which bring forth rhythmic responses |
| Looking at books or pictures<br>Listening to stories<br>Selecting pictures and stories<br>Telling and dramatizing stories<br>Enjoying art prints | Mounted pictures<br>A variety of books suitable for five-year-olds | Enjoyment of story experience<br>Experience in speech<br>Utilization of child's increasing attention span<br>Enjoyment through stories of familiar experiences and of simple unfamiliar experiences | Arranges book corner for individual child's use<br>Checks lighting, size of table and chairs<br>Allows children to browse and to choose stories<br>Demonstrates proper use of books<br>Keeps story group small<br>Encourages attention and children's participation<br>Chooses books suitable to group's maturity and interest<br>Encourages spontaneous and original storytelling and dramatization |

| Kind of Activity | Equipment Required | Value for the Child | Parent Participation |
|---|---|---|---|
| Housekeeping play, playing with dolls, dressing up, expressing dramatically in other kinds of play | Stove, table, chairs, bed, sink, scaled to child's size<br>Dolls, stuffed animals, doll clothes, telephone, doll dishes, dress-up clothes, purses, iron, squares of cloth, broom<br>Tool kit, oil cans, nuts, bolts, paper punch, mesh bags, old letters, old clock, stapler | Provision of natural outlets in play and emotions<br>Easier social contacts for small children<br>Spontaneous group play which fosters group feeling<br>Opportunity to test roles and ideas by doing | Sits near, but does not initiate activity<br>Provides materials as they are requested or needed<br>Occasionally participates but withdraws as children enter into play<br>Is ready to accept rejection if material offered is not interesting to child at the time<br>Encourages constructive use of equipment |
| Watching natural phenomena, digging for worms, planting seeds, feeling the excursions occasionally, watching mechanical equipment at work | Wooden spoons, blunt trowels, cans watering seeds, flats, soil, stream-leaves, rocks, pets, pet cages, aquarium | Development of natural curiosity in living things, the earth around them<br>Development and appreciation of the mechanical aspects of community life | Observes and records children's participation and comments on the world about nests,<br>Provides materials to foster interest<br>Takes children on short excursions<br>Answers questions simply<br>Explains simply what she observes |
| Going through a health inspection | Tray, paper cups, pitchers, wastebasket, disposable tissues | Experience in taking turns, removing wraps pouring from a piter to a cup<br>Cooperation in the observation of good health habits | Sits with child in designated area<br>Encourages child as needed<br>Says goodbye and leaves promptly |
| Toileting and handwashing | Steps which enable child to reach fixtures, toilet tissue, paper towels, clean cloth, waste basket | Recognition of own physical needs<br>Experience in good health habits | Encourages self-reliance<br>Recognizes child's need for privacy |

| Kind of Activity | Equipment Required | Value for the Child | Parent Participation |
|---|---|---|---|
|  |  |  | Helps child roll rug after rest<br>Checks order of restroom before leaving |
| Picking up the equipment | Wagons, boxes, brooms, utensils, cloths | Encouragement in sharing in a job, completing a job, in tidiness and cooperation | Gives warning for pick-up time<br>Indicates what needs to be put away and where, gives encouragement and praise<br>Accepts child's help at his level of achievement<br>Sends child on to rest or next activity when he has done his share |

# EARLY SCHOOL YEARS

## An Introduction

The early school years have traditionally involved children of ages 5-8 who attend kindergarten through the third grade. Newly developing pre-school education programs are tending to group kindergarten five-year-olds with children age 3-4 because of similar levels of maturity. Validation of this trend and further successful curriculum design may well result in clustering grades 1-3 or 4 under curriculum packages appropriate for the early school years.

Present organizational practices in Nevada result in patterns of K-6, 7-9, 10-12 operating in the urban districts. The patterns, K-8 and 9-12, or K-6 and 7-12, prevail in other areas. Organizational patterns, however, are largely a matter of current trends and local preferences which facilitate administrative practice rather than produce quality education for children.

Present curricular patterns in the State are widely varied. There are notable examples of the use of sophisticated modern technology and hardware utilized by sensitive teachers. Some teachers operate in teams, following a carefully planned curriculum. They have available many optional curricular sequences for teaching and/or re-teaching material which appropriate tests show that students have failed to learn. Other patterns reflect in adequate professional preparation, a dearth of creative planning, and a lack of adequate material and equipment.

In every district there exist to some extent examples of the individual teacher's largely determining the curriculum in her self-contained classroom. If the teacher is exceptionally gifted, this works well. Intuitively, with experience and extraordinary perception developed by the expenditure of great amounts of time and effort, the individual teacher puts topic and students together to produce a superior learning experience. Fortunately, these examples are found for all ages and in all ranges of teaching experience; unfortunately, these examples are insufficient in number to bear optimally on the total population to be educated. There exists, however, a general desire for the development of better curriculum materials to teach children more effectively.

In the early school years, two general mandates emerge which apply across subject matter lines:

I. **THE EARLY SCHOOL YEARS MUST NOT PASS WITHOUT EACH CHILD'S ACHIEVING ACCEPTABLE PROFICIENCY IN SPEAKING, LISTENING, AND READING.**

Achieving this goal will require bringing to bear such resources as counseling-guidance, individual testing and analysis, and innovative and imaginative curricular materials implemented by creative modes of instruction. Consideration should be given to organizational patterns to provide low pupil-teacher ratios.

## II. EARLY SCHOOL PROGRAMS SHOULD INCLUDE THE USE OF VARIED MEDIA INCLUDING INSTRUCTIONAL TELEVISION AND THE ASSISTANCE OF PARA-PROFESSIONALS.

In addition to these statements bearing on present practices and mandates for the early school years, a number of specific comments should be made pertinent to specific disciplines and areas of concern.

## EARLY SCHOOL YEARS

### Present Practices - Reading

All Nevada elementary schools offer reading programs for students in the early years. Most of these programs are based on one of several available basic reading textbooks series. In actual practice, teachers make rather free use of available supplementary materials. Most students learn to read, but some fail partly because of being limited to text-oriented methods that do not fit their particular learning style.

In recent years there has been an increasing willingness to introduce a variety of new approaches. Pilot reading programs using programmed material, the Initial Teaching Alphabet, a language experience approach, linguistic sound sequences and patterns, and individualized reading programs have been tried and evaluated. While such programs have not been adopted on a district-wide basis, they have added measureably to the variety of reading-learning patterns in the Nevada schools.

The reading programs are handicapped by the lack of pre-school preparation for reading, and for this reason and for reasons inherent in the program they are not consistently successful. The large number of remedial programs during the middle years is a testimony to the occasional failure to the early developmental reading program to achieve universal success. Improvement in the program will require extended effort, improved initial teacher training, more effective and extensive in-service training, and continuing insistence of the teaching of reading as a primary academic and social responsibility of the early school years.

### Emerging Mandates - Reading

I. **PROGRAMS MUST BE DEVELOPED IN THE KINDERGARTEN TO ALLOW A MAXIMUM INDIVIDUAL LISTENING AND SPEAKING EXPERIENCE.**

The child's facility with standard English usage exerts a profound influence on his ability to learn to read. It is imperative that the kindergarten program be so designed as to develop this facility.

II. **READING PROGRAMS MUST BE DEVELOPED AT THE FIRST GRADE LEVEL THAT WILL SYSTEMATICALLY DEVELOP WORD ATTACK SKILLS BUT THAT WILL ALSO TAKE INTO ACCOUNT THE NECESSITY OF THE EARLY ESTABLISHMENT OF BOTH DECODING AND MEANING COMPREHENSION SKILLS.**

Such programs will avoid the extremes of exclusive emphasis on word recognition, phonics, linguistic patterns, or any restrictive program, and will take an eclectic approach best suited to the needs of the individual student.

III. **THE THRUST OF THE READING PROGRAM MUST BE DEVELOPMENTAL RATHER THAN REMEDIAL.**

It is important to recognize that, although remediation is an important aspect of the total reading program, it is necessary only because the developmental program has failed the individual student at one point or another. More concentrated, resourceful, and imaginative development of the regular reading program will reduce the necessity for extensive remedial steps.

# EARLY SCHOOL YEARS

## Recommended Exemplars - Reading

### MODEL

OBJECTIVES: The process of learning to read is fundamental to education. The student who reads with facility, comprehension, and sensitivity has at his command a fundamental tool for all learning. Consequently, preparing to learn to read, learning to read, and improving one's reading skills is a lifelong process. The objective of an exemplary reading program is to help each student learn to read with skill, understanding, and discrimination.

CONTENT: The kindergarten program will allow a maximum of individual linguistic experience. Through it the child must develop facility in language through daily experiences with language. The child must learn to listen and he must learn to speak fluently. To this end, the program must include dramatic play, purposeful physical activity, and specific planned experiences in listening and speaking. The child must develop a sense of rhythm and pattern. If, in addition, a child is reading or is ready to read at the kindergarten level, the program must be sufficiently individualized to accommodate his needs and encourage his progress.

The kindergarten year is also the time for a careful evaluation of any visual or perceptual problems the child may have. To accomplish this, community medical and psychology resources should be utilized.

Beyond the kindergarten, the reading program itself must be developmental with an emphasis on the prevention of problems rather than on remediation. The effectiveness of the program on the individual student should be checked by continuous and frequent testing and by other meaningful evaluative procedures, particularly the acute and sensitive observation of the teacher. The program should be individualized with a realization that no single book, program, or a body of material will solve all reading problems for all children. The teacher should have available a variety of new and proven materials and media and should bring to bear on the reading program for the individual child her own skill with a variety of methods. It is possible today to provide students with material that is linguistically sound, phonetically consistent, and both interesting and meaningful.

The successful reading program will systematically develop word attack skills, but it will take into account the necessity of the early establishment of both decoding and meaning-centered skills. In other words, implicit in this plan is the fact that neither a meaning based recognition approach or an extended decoding process alone constitutes an adequate program.

The importance of writing as a reinforcing activity, even in the early reading program, is well-established. As the child learns how to write the sounds used in spoken English, the pronunciation, writing, reading, and the meaning of words may be assimilated simultaneously.

By the second or third year, as the child's reading of textbooks in social studies, the sciences, and other disciplines makes it necessary and advisable, special instruction should be included to provide competency in the reading of content material. Specific attention must be given to the development of the special skills needed for reading in science, mathematics, and social studies.

METHODOLOGY: The resourceful, skillfull, and creative teacher is the most important factor in a successful early reading program. Such a teacher will be flexible, sensitive to both frustration and success, infinitely patient, and a master of both materials and methods. To the degree that the ability to read is the *sine qua non* of the education process, primarily and elementary reading teachers bear a great burden of responsibility for the success or failure of their students in later years. With this in mind, no single method, mode of approach, or sequence of presentation can or should be recommended to the exclusion of all others.

## EARLY SCHOOL YEARS

### Present Practices - English

In the first two grades, and sometimes the third, the language study centers around the reading program. Since the reading program includes encoding as well as the decoding process associated with reading, the child does considerable writing along with his reading exercises. His language experiences include listening to the reading of stories and poems, learning songs and poems, and the general linguistic give and take of the classroom. He learns the simplest skills of elementary punctuation and capitalization and begins some independent reading of literature.

While practice varies, the third or fourth grade level marks the beginning of the study of language as such. At present in Nevada, most elementary schools are still using the traditional Latinate Grammar. Spelling is taught, usually with the use of supplementary textbooks, but rarely with any fundamental understanding of the systematic correspondence of sound and letter symbols. Basic handwriting skills and punctuation are taught quite systematically with more sophisticated devices being reserved for the upper levels. In general, the program tends to be quite fragmented. We commonly teach reading, language, or English (which may include grammar, usage, punctuation), spelling and handwriting. Many teachers teach creative writing as separate subjects--not only is each listed subject taught as a discrete subject, but each has its own text and workbooks.

There is frequent confusion between grammar and usage, and problems of substandard dialect are frequently handled with little basic understanding as to their nature. These practices often reflect a failure of in-service language arts courses for elementary teachers to reflect contemporary scholarship in language and in the teaching of language.

### Emerging Mandates - English

**I. THE PROGRAM MUST FIND ITS PHILOSOPHICAL FOCUS IN THE STUDY OF THE LANGUAGE; ITS HISTORY, ITS ETYMOLOGY, ITS STRUCTURE, AND ITS COMMUNICATIVE FUNCTION.**

This focus would do much to avoid the fragmentation and the lack of direction in many programs. Graham Wilson in the "Structure of English" says: "Certainly something special is called for to see a concept of overall structure in English as a discipline in schools today. To begin with: The structure of what? There is language which may include grammar, philology, anthropology, semantics, psychology, and English as a foreign language; literature, which may be English, American, World, and, when the time comes, Interplanetary; composition, which may include grammar, rhetoric, semantics, and logic. Language artists speak of reading, writing, speaking, listening." If one considers the suggestion of Iris M. and Sydney W. Tiedt that the goals of an Elementary English Program should be to understand the English language and how it works, to communicate fluently and clearly in written and oral forms, and to decode and encode English easily, one can see that the common denominator is listening.

## II. THE STUDY OF THE LANGUAGE AND OF ITS APPLICATION MUST HAVE A SOUND LINGUISTIC BASIS.

The application of linguistic principles to the study of language in the elementary school has been widely accepted, and neither of the difficulties involved in retraining teachers nor the reticence of some to abandon well-trodden ways should further delay the exercise of this mandate. This is neither the time nor the place to detail the case for a language-centered, linguistically-based English curriculum, but the mandate for the formulation of a curriculum so focused and so constituted is unmistakable.

## III. THERE SHOULD BE AN EARLY AND CONTINUING EMPHASIS ON COMMUNICATION, BOTH ORAL AND WRITTEN.

Hans Guth, in "Rhetoric and the Quest for Certainty," says that a writing course can "at least start to teach good discipline, self-expression, responsible interpretation of experience, articulate participation in the public dialogue." It is important to realize that composing must be taught with patience and learned with effort. The process must begin at the earliest possible moment in the child's educational experience, and it should be continued unremittingly as long as he attends school. In the elementary school the student must learn to write with clarity, to organize ideas coherently, to use mechanical skills as a means toward the end of clear writing, and to appreciate the writing of others.

## IV. THE PROGRAM MUST OFFER CONTINUING DEVELOPMENT IN READING SKILLS.

While this mandate has been covered in some detail in the master plan for reading, it should here be emphasized that beyond the early reading experience the student's interest in reading and his skills in the art can be developed and sustained by providing him with appropriate reading material, and by encouraging him to read widely. The development of skill and the firm establishment of positive attitudes toward reading is the basis for any successful literature program.

## V. THE PROGRAM MUST TAKE INTO ACCOUNT THE SPECIFIC LANGUAGE NEEDS OF THE CULTURALLY DEPRIVED.

Compensatory education of the disadvantaged focuses on the English language problem as it exists in the ghettos and the rural poor. The failure of previous programs where they have existed has resulted in an increasing number of unemployable people with a widening gap between the affluent and the poor, and the intrusion upon the national conscience, often by violent means, of the plight of the ghetto dweller, the migrant worker, and the poverty-ridden small farmer. One common denominator of the disadvantaged is a general lack in language skills--thinking, listening, speaking, writing, and reading. The gap between the language of the home and the street and that of the schools imposes a special difficulty on these students.

An English program for the disadvantaged must be flexible and it must involve teachers of the greatest skill and understanding; classes must be kept small, possibly by the use of aids and para-professionals; scheduling should be extremely flexible, and the program, if possible, should be ungraded. The program must further include reading specialists, bilingual teacher aids, media of all kinds, and imaginative classroom planning. The mandate to divide language programs for the disadvantaged is both clear in its definition and national in its scope.

VI. **THE PROGRAM SHOULD BE CONCEPT-CENTERED RATHER THAN FACT-CENTERED.**

The definition and formulation of linguistically-sound concepts in grammar, sentence and paragraphic rhetoric, and literary criticism is necessary if the English program is to develop balance and breadth. Many students, for example, struggle to write themes without a sound conceptual understanding of the rhetorical structure of the sentence.

VII. **THE PROGRAM SHOULD MAKE FULL USE OF ALL AVAILABLE MEDIA AND OF SUCH METHODOLOGICAL DEVISES AS TEAM-TEACHING, INQUIRY METHOD, AND INDIVIDUALIZED INSTRUCTION WHEREVER PRACTICABLE AND DESIRABLE.**

While change in materials and in patterns for the sake of change is not desirable, the language arts program often benefits especially from the great flexibility derived from such changes. The extensive use of media is especially valuable, and often allows for added student involvement in the education process.

## EARLY SCHOOL YEARS

### Recommended Exemplars - English

### MODEL I: The Study of Language

OBJECTIVES: The study of language during the early school years should reinforce and systematize the valid observations and practices the student has already begun. The language program should reinforce the reading program by introducing syntactical concepts that are linguistically consistent.

CONCEPT: The study of language should introduce gradually the facts of elementary syntax, the sound system of the language, a system of spelling based on sound and letter correspondences, some idea of the history of the English language, and a linguistically-sound syntax. Textbooks dealing with this content area are becoming increasingly available, along with supplementary materials suited to individual needs.

METHODOLOGY: The language program requires constant student involvement in the use and manipulation of the language. Teacher lectures about language are no substitute for this intense and individual involvement by students. The student must do more than listen to talk about language; he must become directly and constantly involved in all aspects of language--its history, its shape and form, and its uses. The student should be led to discover for himself the way in which the language operates, its syntactical patterns, its levels of usage, and the mechanics of writing and speaking it.

### MODEL II: Composition

OBJECTIVES: The sequence in composition should develop skill in both oral and written composition.

CONTENT: The student must be given adequate opportunity to speak and to write and to have his speaking and writing constructively criticized. There should be early emphasis on the shape of ideas and on the form, the structure, and sequence of the sentence and the paragraph.

In the early years it is especially important that the writing program capitalize on the child's imaginative gifts. The child should be allowed to experiment in genre and in form and should be encouraged to be creative, clear, and precise in his composing.

A suggestion as to specific content in vocabulary stimulation might be derived from the following typical assignment derived from an "idea book" produced by elementary teachers in Santa Barbara, California:

VOCABULARY - Visualizing Pictures

Select a familiar story, in working with adjectives, as "Goldilocks and the Three Bears," and read it to the class without showing the story illustrations. After reading it, ask questions which will help children to visualize the story as:

How would you describe a forest?

64/65

If you could have met Goldilocks, how do you think she would have looked?

What do you think Goldilocks might have seen as she was walking by herself in the forest, other than the bear?

What are some things the bears might have said when they were picking berries?

See how many picture words--good descriptive words--the children can suggest orally to describe key nouns from the story as:

Porridge....piping hot, creamy, thick
Beds....feather soft, wide, cozy
Bears..............................
Forest.............................
Berries............................

Motivate the children by proposing the following problem:

Suppose in a story we want the reader to feel sleepy. How many words can we think of that might make him feel sleepy or that would describe a sleepy person? What actions would show that a person was sleepy without his saying that he is sleepy? Discuss orally.

How might we describe an excited person?

Fill in these blanks so that the reader gets one impression of the house. (It could be haunted, beautiful, a logcabin, run-down, or a mansion.)

The _______________ house stood _______________. It was _______________. Its windows were _______________. The yard was _______________ with _______________ flowers (dying, growing, climbing) beside a _______________. In front of the _______________ (another word for house) was a _______________. As I passed by, I felt that the family who lived in this house was _______________.

METHODOLOGY: While there is probably no one method by which composition should be taught during the early school years, it is important that there should be as much opportunity to speak and to write as possible. Very little good is derived from excessive talking about writing without the vital student involvement in the process itself. The approach should also emphasize the larger aspects of composition, and while reasonable effort should be made in the direction of correct spelling and sound punctuation, these mechanical considerations should not be the major measure of a composition value. In brief, whatever method the teacher finds best suited to gain the objective of clear, coherent, and precise oral and written expression should be used, expanded, and improved as long as it produces results.

## MODEL III: A Language Program for the Culturally Deprived

OBJECTIVES: A language program for culturally deprived students should provide those students with those language skills necessary for them to become productive members of society.

CONTENT: The program must approach the problem of varient dialects and usage patterns realistically and constructively. Program must teach the speaking, writing, and reading of standard English, often virtually as a second language, without reflecting adversely on the validity of the child's native dialect. Skill in the use of standard English should be gained by observation and practice rather than by the mastery of syntactical rules.

METHODOLOGY: The English program for the disadvantaged must be flexible; it must involve teachers of the greatest skill and understanding; classes must be kept small, possibly by the use of aides and para-professionals; scheduling should be extremely flexible, and the program, if possible, should be ungraded. Program personnel must include wherever possible reading specialists, bilingual teacher aides, media of all kinds, and imaginative classroom planning. Special attention should be paid to diagnosing individual needs and prescribing a program that will help answer those needs.

# EARLY SCHOOL YEARS

## Present Practices - Mathematics

Mathematics is taught to all students every day throughout the early school years. Most mathematics programs range from thirty to sixty minutes per day of instructional time with the trend toward spending more time than was spent in the past, since it has been found that the activity-discovery approach to teaching mathematics requires more teaching time.

The national emphasis for the past several years has been on changing the approach to teaching mathematics from a program based upon drill and practice to a program built upon an understanding of a few broad concepts. There has likewise been a trend toward improving the content of the curriculum. The acceptance of these goals and improved content is evident in Nevada by the textbooks which have been adopted. Although many primary teachers in all areas of the State have participated in training activities dealing with changes in the subject matter and method of presentation, modes of instruction still exist which are not consistent with the new approach.

The State course of study in elementary mathematics is reasonably "modern" and has been expanded in practice by some of the districts.

## Emerging Mandates - Mathematics

I. **MATHEMATICS PROGRAMS MUST OFFER MUCH GREATER INDIVIDUALIZATION AT THE PRIMARY LEVEL.**

There are implications in this mandate for school organization (non-gradedness), methodology, materials, and content. The school plant must be planned or replanned in such a way as to make individualization possible.

II. **THERE MUST BE AN EFFORT TO CONTINUE AND EXPAND THE SIGNIFICANT IMPROVEMENTS IN CONTENT REALIZED WITHIN THE PAST FEW YEARS.**

For example, there must be an earlier introduction of algebra and geometry, and an emphasis on the concepts of measurements as a means of relating mathematics to the real world.

III. **SKILLS AND CONCEPTS MUST BE BROUGHT INTO A REASONABLE BALANCE.**

The old emphasis on skill, often without understanding, was not productive. The extreme of concept understanding at the total sacrifice of skill is hardly more defensible. Both skill and concept understanding must be a part of the program.

IV. **TEACHING METHODOLOGY MUST BE RELATED TO AN ACTIVITY-DISCOVERY APPROACH.**

In this, the child is led to a self-discovery of fundamental mathematical concepts by carefully planned activity. Modes of instruction must be consistent with new approaches and materials.

## V. TEACHER TRAINING MUST BE RELATED TO NEW CONTENT, NEW APPROACHES TO TEACHING, AND TO NEW EDUCATIONAL TECHNOLOGY.

This would apply equally to in-service training and to teacher training at the university level.

# EARLY SCHOOL YEARS

## Recommended Exemplars - Mathematics

### MODEL

OBJECTIVES: Children come to the schools in the early school years with little, if any, significant differences in mathematical background and without set attitudes, positive or negative, toward mathematics. The general objectives at this level most nearly pertain to all students.

The mathematics program during the early school years has as its objectives:

1. The development of basic number concepts.
2. The development of favorable attitudes toward mathematics.
3. An understanding of and proficiency in the operations on numbers.
4. An awareness of the applicability of mathematics to other areas.

CONTENT: The curriculum content for the mathematics program in the early years can be categorized into six strands: Number, Numeration, Operations, Geometry, Measurement, and Problem Solving. These six strands are very much interrelated but serve as a useful description of one dimension of the early school years mathematics curriculum matrix. The other dimension is one of increasing depth of understanding, skill, and complexity. The primary focus of the program is the set of whole numbers and the operations of addition, subtraction, simple multiplication, and an approach to division. Geometry is included at the level for the purpose of shape and symbol recognition and the development of spacial perception. Research indicates this should be started at an early age. The geometry at this level is certainly not similar to formal high school geometry. Measurement concept rather than skills are emphasized.

The Nevada Elementary Course of Study, as revised in 1964, is considered as an up-to-date statement of the mathematical content for the early school years and is recommended as a model upon which a school program can be based. The Clark County Mathematics Curricular Guide K-6, 1967, (which was developed with the assistance of the State Department of Education) represents an extension of the State Course of Study. This curricular guide, which states objectives in terms of student behavior, is the only one of its kind, and is highly recommended as a content model.

Another useful model is the curriculum matrix developed by the IPI (Individually Prescribed Instruction) project in Pennsylvania.

METHODOLOGY: A modern topical outline of mathematical content does not read too differently from past outlines. Most of the significant changes in mathematics in the early school years deal with methodology. Topics such as sets, number sentences, and logic have become new content only because they improve the teaching approach to standard expected outcomes.

The teaching methods for a model mathematics program for the early school years would be based upon the following postulates:

1. Learning based upon understanding of basic concepts is more satisfying to the learner and is retained longer. Thus, teaching strategies based upon understanding rather than upon fact memorization are both more effective and efficient.

2. Learning is enhanced by active participation on the part of the learner. Thus, the learner should be provided opportunities to discover things for himself in an activity-discovery approach.

3. Learning occurs at individual rates, so classroom and school organization should take this into account.

4. Transfer of learning is not accomplished automatically but rather by being taught directly.

5. Recent developments in educational technology have proven effective; the methods of presenting material should be more teacher-directed than teacher-centered.

6. Rote memorization and drill are not acceptable methods of accomplishing sound mathematical objectives.

7. The accomplishment of the above designated model will require extensive in-service education for teachers.

## EARLY SCHOOL YEARS

### Present Practices - Science

Many of the science programs during the early school years in Nevada are largely exercises in reading about science. These exercises are limited by the pressures of time, space, equipment, and by the numbers of pupils. These pressures eliminate vital experiences with science materials from the elementary school classrooms. Many elementary teachers have relatively weak backgrounds in science, and their lack of experience with science materials and with science experiments often limits their teaching. Teachers often fear or dislike science and anticipate that attempted demonstrations will fail and that pupils will ask questions for which they will have no answers.

### Emerging Mandates - Science

I. **EARLY SCHOOL SCIENCE PROGRAMS MUST BE DESIGNED WHICH ADHERE TO THE APPROACH THAT THE PURPOSE OF SCIENCE IS TO ASSIST BOYS AND GIRLS IN LEARNING SKILLS AND CONCEPTS TO ENABLE THEM TO COPE MORE EFFECTIVELY WITH OBJECTS, FORCES, AND EVENTS WHICH CONSTITUTE THEIR ENVIRONMENT.**

The purpose of the elementary science program cannot be justified in the terms of content mastered nor in the terms of teaching children how to perform as scientists.

II. **MODES OF INSTRUCTION MUST BE GEARED TO ALLOW ALL OF THE SENSES OF THE CHILD TO BE INVOLVED IF THE EXCITEMENT OF SCIENCE IS TO BE REALIZED.**

There is no known way to obtain such involvement short of the child's direct participation.

It is widely accepted and appreciated that learning science involves active participation rather than passive exposure.

III. **THERE MUST BE COMPETENT AND SELF-CONFIDENT TEACHERS WHO KNOW AND ENJOY SCIENCE AT THEIR TEACHING LEVEL IN ORDER TO PROVIDE ADEQUATE ARTICULATED SCIENCE PROGRAMS FOR KINDERGARTEN THROUGH THE FOURTEENTH YEAR.**

The teacher who dislikes and feels uncomfortable with science is likely to create the same attitude in his pupils for it is doubtful that enthusiasm for science can ever come from a person who feels inadequate himself.

## EARLY SCHOOL YEARS

### Recommended Exemplars - Science

MODEL

OBJECTIVES: The science program in the early school years will be an interdisciplinary sequential curriculum for all students in grades K-4. The knowledge and the processes of science will form the vertical threads of continuity. The societal and humanistic impact of science will be emphasized.

CONTENT: The curriculum design will include areas that are socially significant and experiences that will contribute to the growth and development of children. Societal areas will include: Safety, conservation, atomic energy, sanitation. Humanistic areas will include: Life science and physical science. The curriculum design will call for science material which are student-centered, investigative and laboratory-oriented.

METHODOLOGY: A different style of teaching is required for most new programs. Teachers will be prepared to direct investigative and laboratory experiences and to utilize appropriate materials.

Elementary units emphasizing environmental factors interest the child because of his awakening awareness of the world around him. Concepts such as "hot" and "cold", "wet" and "dry", as well as observations of the direction and the velocity of wind can be systemized in early science programs.

Certain units may be based on the child's natural questions. What makes the night dark? What is thunder? Why is fire hot? These and similar questions can be the basis for impromptu science quests that are frequently most stimulating and productive.

The method must be extremely flexible and informal. It must encourage the child's curiosity and should involve him in basic inquiry whenever possible.

## EARLY SCHOOL YEARS

### Present Practices - Social Studies

During the early school years the social studies program is concerned with developing an understanding of man as he interacts with his family, neighbors, and his immediate geographic environment. Social Studies topics (units) generally focus on the home, school, and the community. At present, the teaching of social studies in the primary grades has been relegated to the development of certain basic skills, such as reading, and the imparting of knowledge about the home and community which often lacks any connection with the social science disciplines (history, geography, anthropology, political science, economics, and psychology) that make up social studies education. In some classrooms, units formerly dealing with social studies content and concepts have completely disappeared in favor of a heavier emphasis upon science.

There is very little evidence that the primary school social studies programs are dealing with basic ideas from the several social science disciplines or with inquiry skills, and these two areas along with value and attitude development are essential if the objectives of social studies education are to be achieved.

## EARLY SCHOOL YEARS

### Emerging Mandates - Social Studies

**I. TEACHERS OF SOCIAL STUDIES MAY PROPERLY BE EXPECTED: (1) TO KEEP ABREAST OF CONTEMPORARY SOCIAL CHANGES AND NEW INTERPRETATIONS OF MAJOR SOCIAL CHANGES IN THE PAST, (2) TO CHOOSE FOR INSTRUCTION SUBJECT MATTERS THAT ARE RELATABLE TO CURRENT SOCIAL CHANGES AND TO THE SEVERAL SOCIAL SCIENCE DISCIPLINES, AND (3) TO AID COLLEAGUES AND CITIZENS IN UNDERSTANDING CURRENT SOCIAL CHANGES AS THEY MAY EFFECT THE SCHOOLS.**

**II. SOCIAL STUDIES PROGRAMS MUST DRAW SUSTENANCE FROM ALL THE SOCIAL SCIENCES SINCE NO SINGLE SOCIAL SCIENCE HAS THE DIMENSIONAL CHARACTERISTICS APPROPRIATE TO THE DEVELOPMENT OF A ROUNDED SOCIAL STUDIES PROGRAM.**

The rapid changes in our contemporary world present a challenge to education, and that challenge is mostly directed towards the social studies, for it is through the knowledge and methods derived from research in the social studies that the individual is aided in better understanding the nature, scope, and working of a dynamic world. Certainly, the responsibilities of the individual in a culture effected by dynamic changes calls for persons who can effectively observe, analyze, and meaningfully interact with their total environment.

All too soon the children of Nevada will, as adults, be confronted with decisions which will effect both their freedom and their security. The answers they will give to the nation's social, economic, and civic problems will not emerge in their consciousness full-blown, but will mature gradually through the educative process.

**III. INDIVIDUALS MUST POSSESS BASIC SKILLS IN THE SORTING AND SIFTING OF FACTS WHICH PROVIDE THE BASIS FOR THE CREATION OF NEW IDEAS AND WHICH FACILITATE DECISION-MAKING FOR LIVING IN A FREE SOCIETY.**

In a basically free system, individuals are given the right of free choice and the responsibility of accepting the consequences. It is unrealistic to expect responsible decision-making when persons in our educational system are trained to repeat factual information, for this implies that performance will be elicited upon a given signal or at the introduction of particular types of stimuli. This kind of training is not compatible with the responsibility placed upon individuals as participants in this system--to make rational decisions which will benefit them personally and lead to a strengthening of the system itself. This need for the development of a rational decision-making ability has been intensified and complicated by the explosion of factual knowledge.

**IV. THE LONG PROCESS OF CONDITIONING FOR ANALYTICAL THINKING MUST START IN KINDERGARTEN, IF DEPTH OF COMPREHENSION IS TO BE GAINED: KNOWLEDGE RELATIONSHIP, UNDERSTANDING, CONCEPTUAL IDEAS, SKILLS, AND ATTITUDINAL CONSIDERATIONS ARE ESSENTIAL.**

The interaction of man with his environment in a more meaningful way is the charge of the social studies program. In the final analysis the purpose of social studies education is the development of problem-solving ability. By acquiring the knowledge and the analytical tools inherent in social science knowledge, and the skills to apply this knowledge to the problems of our environment, both personal and social, our students can participate more intelligently in the decisions of a free society. The development of a problem-solving ability will help our young people to gain respect for the social studies as an organized body of knowledge. The use of knowledge and discovery of ideas underlining the social processes requires a particular mode of analytical thinking.

V. **THERE IS A NEED THEN TO IDENTIFY, FIRST OF ALL, THE BASIC OR MAJOR IDEAS OF THE SEVERAL SOCIAL SCIENCES THAT COMPRISE SOCIAL STUDIES EDUCATION IN THE TOTAL K-12 SEQUENCE.**

Since all the social science disciplines are necessary to explain social phenomena fundamental ideas of all the disciplines should be introduced in the social studies curriculum. The major ideas of the social sciences should be introduced in the early grades and then developed in increasing degrees of sophistication through the total social studies sequence. This builds a social studies sequence upon a conceptual scheme as a continuous K-12 program and provides a solid foundation upon which to build a meaningful program.

VI. **A DELINEATION MUST BE MADE OF INQUIRY SKILLS APPROPRIATE TO THE SOCIAL STUDIES.**

These inquiry skills are not seen in lieu of reading and writing skills, but are in addition to these basic skills. Inquiry skills are those necessary tools which can enable the student to develop, prove, and use ideas from the disciplines of history, geography, anthropology, political science, economics, psychology.

Because the concepts are man-made, and because man both designs the observational system and selects the pertinent observations from the system, it is evident that if one is to understand the use of the concepts, he must understand the processes employed in generating the concepts. It is important to note that concepts are opened to continual experimentation, validation and reconstruction. Inquiry skills are the necessary tools which students can employ as they use knowledge as a springboard in seeking to verify and reconstruct their understandings in the light of new evidence. As one considers any of the inquiry skills, it becomes clear that there are many related subprocesses and that the subprocesses may be tentatively arranged in hierachy. This arrangement may then serve as the starting point for the inclusion of the inquiry skills in the social studies curriculum. Once developed, a given sub-process should be applied as it is needed throughout a student's K-12 social studies experience.

VII. **THERE MUST BE EMPHASIS ON ATTITUDAL DEVELOPMENT AND VALUE CLARIFICATION.**

The social studies program would not be complete without taking into account value and attitudal attainment. Certainly we should be concerned with the dignity and worth of the individual. Thought should be given to the area of value clarification rather than value indoctrination, and teachers should effect value changes only through particular teaching strategies that help students see, define, and basically clarify their own positions. With regard to attitude attainment, it is important that we impart to students the willingness to participate, to become actively involved in our society, and to have a healthy respect for inquiry and attentiveness of knowledge. As educators work with values and attitudes, it is imperative to remember that the student's self-concept must be recognized and developed. Above all, the student will imply to his teacher that: "I can't hear a word you're saying, for what you are is speaking too loudly."

VIII. THE SOCIAL STUDIES TEACHER, THEN, MUST BE EQUIPPED WITH SOME NOTION OF WHAT KNOWLEDGE, WHAT INQUIRY SKILLS, AND WHAT ATTITUDES AND VALUES TO DEVELOP TO ACHIEVE THE OBJECTIVE OF THE SOCIAL STUDIES PROGRAM.

This objective is to develop individuals who can astutely observe and analyze society and meaningfully interact with it. These individuals possess a sense of social responsibility and awareness and are equipped to discharge intelligently their duties as citizens.

IX. THE EARLY SCHOOL SOCIAL STUDIES PROGRAM SHOULD BE CONCERNED WITH THE DEVELOPMENT OF BASIC SOCIAL STUDIES CONCEPTS, INQUIRY SKILLS, ATTITUDES AND VALUES, RATHER THAN PROOF AND USE OF KNOWLEDGE.

The processing use of knowledge will receive greater attention during the middle and pre-vocational school years. The social science disciplines are in the state of rapid growth and redefinition, and they continually reflect the rapid changes going on in the contemporary world. This dynamic world makes knowledge more tenable than ever before. However, this knowledge must serve as the basis of social studies learning, and unless we can draw from this knowledge, the basic concepts necessary for general application, there is little function in learning. Efforts should be made to guide students as they learn to use conceptual tools and techniques of inquiry in ways that typify the values associated with rational study.

X. THE SOCIAL STUDIES PROGRAM MUST HELP STUDENTS TO BECOME INFORMED ABOUT THEIR OWN AND OTHER CULTURES.

There is a trend toward the introduction of considerable content about people of other cultures into the early school program. This trend should be augmented with appropriate visual material and by the inculcation of sound attitudes toward cultures that are different and not inferior.

XI. THERE MUST BE AN INCREASING EMPHASIS UPON THE INTER-DISCIPLINARY AND CROSS CULTURAL DEVELOPMENT OF SOCIAL STUDIES CONTENT.

Each discipline, history, geography, economics, anthropology, political science, social studies, and psychology, should contribute in its own specialized way to an understanding of the patterns and consistencies of human behavior.

Because of the importance of minority groups and the importance of urbanization it is hoped that attention will be given to these topics at an early age and then interwoven throughout the entire social studies curriculum.

Not all children come to school with rich experiences about man and his world. Many have had extremely limited contact with people, places and things beyond their immediate environment. Local curriculum planning may be the only way such variations in pupil background can be accommodated.

XII. **AS WE LOOK FOR RELEVANT CONTENT IN THE EARLY SCHOOL EXPERIENCES, CONSIDERATION MUST BE GIVEN TO THE SELECTION OF CONTENT THAT BEST FILLS THE NEEDS AND TOUCHES THE INTERESTS OF THE CHILD AS HE MAKES THE TRANSISTION FROM HOME TO SCHOOL IN THE WIDER COMMUNITY.**

## EARLY SCHOOL YEARS

### Recommended Exemplars - Social Studies

### MODEL I: The California Program

OBJECTIVES: The first exemplary social studies framework is that of the State of California. It is committed to a conceptual scheme that emphasizes inquiry as a sound strategy to facilitate the objectives of social studies education.

CONTENT: The format of the program is arranged by areas of study as follows:

Grades K-2 MANKIND
3-4 MAN AND LAND: CULTURAL AND GEOGRAPHIC RELATIONSHIPS
5-6 MANKIND AND MEN
7-9 ECONOMIC AND POLITICAL SYSTEMS AND THE URBAN ENVIRONMENT
10-11 THE RELATION OF PAST AND PRESENT
12-A DECISION-MAKING IN THE UNITED STATES
12-B CAPSTONE ELECTIVES

The entire scope is indicated here to emphasize the necessary development of K-12 social studies program.

Within each block of grades, the studies are subdivided into Topics. The "label" for each Topic is a question, and the topical question is intended to suggest both the conceptual content of the Topic and the inquiry nature of the learning within it.

Each Topic is built around the three major elements of an inquiry-conceptual program: (1) The process and modes of inquiry, (2) Selected conceptual tools, and (3) Settings. The studies have been arranged so as to facilitate a sequential mastery of the several modes and processes of inquiry, with particular modes and inquiry processes being emphasized within each Topic. Each Topic similarly emphasizes certain conceptual tools, with the conceptual content of the program being arranged sequentially by Topics. The overall design for sequencing these major elements of the program is discussed in the following section.

METHODOLOGY: Inasmuch as the primary objectives of the program are in the areas of inquiry processes and conceptual understandings, the settings have not been specified. Instead, for each Topic, criteria are specified for choosing settings through which the primary inquiry-conceptual objectives of that Topic may be achieved. The first question always is: What settings will be most effective for practicing the inquiry processes and developing the concepts singled out for emphasis in this Topic? Only then does one ask what settings will at the same time best meet the secondary or "mileage" criteria for settings. The program suggests for illustrative purposes, but does not specify, settings that seem appropriate to both the primary and secondary objectives of each Topic.

Throughout the primary-elementary grades the emphasis is on the analytic mode.[1] To start with the analytic mode is an inescapable strategic choice. Integrative thinking builds upon analytic thinking. Without a firm sense of what analytic thinking is, one can hardly distinguish integrative thinking from untutored thought, while effective policy thinking depends upon both the analytic and the integrative modes.[2] Moreover, the greater precision and clarity of the analytic processes make it easier for the child to perceive and to think about them as processes and at the same time to perceive the differences and advantages in systematic as opposed to untutored thinking. In Grades K-2 the emphasis is on the simplest analytic processes of observation and classification, primarily in terms of physical properties directly perceived. In Grades 3-4 these processes are applied to indirectly observed patterns of behavior in more complex settings, and the additional processes of contractive analysis and generalization are introduced. As for conceptual content in Grades K-2, children are asked to think about human communication, man's relation to the natural environment, and social organization, especially rules and roles. The theme of man's relation to the natural environment is more intensively explored in Grades 3-4, along with consideration of the cultural and "racial" similarities and differences among men. The settings throughout these early years cover a wide range of human situations. For example, even the California setting of Grade 3 emphasizes the different cultures that have occupied the same natural environment.

---

[1] Analytic mode is defined in the California social studies framework as an inquiry process that singles out one particular aspect (or a few) of a total situation for attention, and tries to hold constant all other significant aspects (variables) of the situation while the aspect selected for attention is analyzed.

[2] Inquiry in the integrative mode utilizes to the fullest possible extent understanding derived from analytic inquiry (for example, an analytic understanding of decision-making can contribute greatly to understanding the Revolutionary War or a contemporary high school). Certain kinds of analytic inquiry (for example, systems analysis) can even help us to see a social settings as an integrated whole. The inquirer in the integrative mode recognizes the practical necessity of using the best conceptual tools available. These conceptualizations--some from analytic inquiry, some from intuition, and some from the customary ways of thinking in the inquirer's culture--are obviously of varying and unequal analytic value. But they are brought together in order to provide the richest and most varied set of perspectives for viewing and comprehending the social setting under study.

# EARLY SCHOOL YEARS

## Recommended Exemplars - Social Studies

### MODEL II: The Wisconsin Program

### Introduction

A second exemplary state social studies program is A Conceptual Framework for the Social Studies in Wisconsin Schools which is conceived as a guide to help local schools develop their K-12 social studies program in a sequential (accumulative) manner. Generalization (incorporating major concepts) are delineated from the several social science disciplines and arranged in increasing degrees of sophistication from kindergarten through the twelfth grade. Emphasis is placed on the development, proof and use of the social studies ideas, and the processes (skills and attitudes) necessary to negotiate this task.

The Wisconsin conceptual framework makes at least two important implications for social studies education. First, each field of study has at its core basic or major concepts, which may or may not be unique to a particular field of study, but which are basic to its understanding. For example, if one is to understand geography, he must understand such concepts as region and linkage. If one is to understand sociology and anthropology, he must understand the concept of socialization. If one is to understand any of the fields with which the social studies are concerned, he must understand change. Second, while understanding a concept is synonymous with insight into a discipline, it also refers to a mental process of attaching reliable meaning to experience.

It seems to follow from these two points that concepts not only may serve as knowledge objectives of social studies instruction, but conceptualizing suggests the nature of the method used in the teaching-learning situation as well, and it suggests, further, the nature of the appropriate objectives in the area of intellectual skills. In other words, the products of conceptualizing (the concepts themselves) constitute knowledge objectives, and the process of conceptualizing furnishes both skill objectives and method of instruction.

OBJECTIVES: The social studies program in the early school years strives to develop an understanding of basic concepts related to the field.

CONTENT: The scope of the Wisconsin social studies program in the early school years is suggested by the following grade level themes:

Kindergarten - The Child and His Immediate Environment
Grade One - Families and Their Needs
Grade Two - Communities and Their Activities
Grade Three - Communities in Other Lands

Throughout the early school years, emphasis is placed upon the development of selected social studies concepts from the several related disciplines which are incorporated into the framework. Related to these concepts, the value contingent of the early school years focuses upon the dignity of the individual and upon the development of the student's self-concepts. The content progression in these years begins with the child in his immediate environment and progresses through successive concentric sequences through world regions and their development.

The development of inquiry skills is especially important in the early school years. Those specific skills of observing, classifying, infering, and communicating are basic to the child's developing academic competencies.

METHODOLOGY: In a concept centered curriculum which makes extensive use of inquiry procedures, the traditional method of doling out factual material has no place. A methodological key is student involvement. Methods that design and utilize independent student inquiry, student synthesis, and student awareness will serve both to inform and to develop positive attitudes and essential skills.

## EARLY SCHOOL YEARS

### Present Practices - Foreign Languages

At the present time there are functioning in the public and private elementary schools in the State of Nevada 20 foreign language programs. The majority of these programs are located in Washoe and Clark Counties. Prior to November 17, 1966, foreign languages in the early school years were conducted on an experimental basis with special permission from the State Board of Education. The State Board of Education on November 17, 1966 approved inclusion of foreign language courses of study as part of the elementary course of study for the State of Nevada. This action provided that any elementary school which desired to offer foreign language instruction could do so without obtaining special permission from the State Board. This course of study permits foreign language study on a voluntary basis and does not have the element of mandated foreign language study as occurred under the "Casey" Bill in California.

Foreign language instruction in Washoe County consists of instruction in the private schools of Washoe County. This instruction is conducted by native speakers in the parochial schools in the Reno area. In Clark County, elementary foreign language instruction is found in both public and private schools. The professional staff in the public schools consists of regular classroom teachers with a background in foreign language, and in some cases special native consultants under contract as in Washoe County. Private and parochial schools in Clark County maintain their own staff, using native speakers. There are a few scattered programs throughout the rest of the State.

Materials used in current foreign language programs in the early school years are from two different sources--one commercial and the other developed by the individual teacher. Materials consist of textbooks, films, filmstrips, tape recordings, records, and language laboratories. The language program in the early school years has little direction, almost no articulation with subsequent classes, and no overall commitment at a district level for increasing foreign language programs. Most of the programs which are currently functioning have been established as a result of parental desire, administrative decision, or the enthusiasm and skill of a teacher. The languages currently being taught in the elementary schools are Spanish, French, and German. Usually the selection of the language to be taught is based upon the availability of a proficient teacher. Very scattered efforts have been made to provide enrichment programs for children learning foreign languages.

Training of teachers in the area of foreign languages for the early school years has never been seriously approached in the training institutions in the State of Nevada. Consequently, the efforts of teachers, even though sincere, indicate some lack of direction and overall consistency.

EARLY SCHOOL YEARS

Emerging Mandates - Foreign Languages

I. **ALL SCHOOLS THAT OFFER FOREIGN LANGUAGES MUST ALLOW EVERY STUDENT WHO WISHES TO PARTICIPATE TO DO SO.**

Too often arbitrary decisions of aptitudes for foreign languages are based on criteria which have no bearing on the experiences offered through the study of foreign language.

II. **REGARDLESS OF THE FOREIGN LANGUAGE CHOSEN AS A STARTING LANGUAGE, THERE SHOULD BE DEFINITE PLANS MADE FOR THE CONTINUATION OF THE STUDY OF THAT LANGUAGE THROUGH SUBSEQUENT YEARS.**

There is no valid evidence to indicate that one language should be studied over another. Continuity appears to be more significant than the starting language. The study of one language does lend itself to the study of others.

III. **INSTRUCTION MUST FOLLOW A FUNDAMENTAL SKILLS APPROACH.**

Skills in listening and understanding, speaking, reading, and writing should be developed sequentially in that order.

IV. **FOREIGN LANGUAGES SHOULD BE AN INTEGRAL PART OF THE EARLY SCHOOL YEARS CURRICULUM.**

An increasing number of universities and colleges are providing special training in the area of foreign language instruction at the elementary level. Over a period of years of experimentation in foreign languages in the elementary schools, justification has now been established that foreign language programs can be and are a valuable part of the elementary school curriculum, and as such, specific training should be given to teachers so that a good dependable program can be provided. Strong concern is expressed concerning language programs in the elementary school which have received unfavorable publicity as a result of poor planning, poor teacher preparation, and poor administrative support.

## EARLY SCHOOL YEARS

### Recommended Exemplars - Foreign Language

MODEL

OBJECTIVES: Early school foreign language programs will be an integral part of the school program designed to develop fundamental skills. Programs will be open to all students in the grade level where the language is offered. Programs will seek sympathetic administrative and parental involvement.

CONTENT: The program and materials should be well designed and follow the fundamental skills approach. Planning will make allowances for subsequent foreign language instruction at all grade levels.

METHODOLOGY: The scheduling of formal foreign language instruction will be on a consistent basis at least three times a week, but preferably every day. Such instruction will not be conducted before or after school in the manner of an extra-curricular enrichment program. The length of classes will be based on the age and maturity of individual students. The teacher will have good background in the language, including facility in speaking and technique of instruction. The teacher may be a regular classroom teacher with these necessary skills or a specialist who moves from class to class. Television or other special media may be employed by a skilled instructor. The instructor or specialist will implement a fundamental-skills approach.

## EARLY SCHOOL YEARS

### Present Practices - Physical Education

Very little is being done in Nevada to accomplish the following objectives of a physical education curriculum: To assist the child in the development of organic power and vigor or physical efficiency; to increase his neuro-muscular coordination or specific skills in motor activities; to develop desirable social habits and attitudes; to develop in the student an appreciation for satisfying skills in wholesome leisure-time activities.

There are isolated instances where physical education is being taught during the early school years, specifically in the two larger counties. Present practices in all areas involve some broad recreational aspects of a physical education program. Despite the obvious values in a physical education program at this level, however, where there are programs with objectives beyond the recreational they exist because one principle, or frequently one teacher, institutes a limited program in one school or in one classroom. When this person moves the program goes with him. There is little equipment, other than the usual playground swings and bars. Classrooms are frequently too crowded to allow for movement activity, and multi-purpose rooms offer insufficient space and scheduling opportunities.

### Emerging Mandates - Physical Education

I. **SCHOOLS MUST EMPLOY TEACHERS WHO ARE AWARE OF THE NEEDS AND DESIRES OF THIS AGE GROUP.**

During the early school years (grades K-4) in order for physical education to be sufficient, a child must enjoy the program. A qualified teacher can then channel the child's natural desire for activity into more significant, beneficial, and organized play. Teachers must have an awareness of the varying need of individuals and develop their programs in physical education to fit these individual needs.

II. **THE PROGRAM MUST PROMOTE IN THE CHILD AN AWARENESS OF A HEALTHY BODY BY TEACHING PROPER DIET, ADEQUATE REST, AND THE VARIOUS PHYSICAL ACTIVITIES WHICH WILL GIVE THE CHILD THE OPPORTUNITY TO USE ALL OF HIS MUSCLES, THEREBY STRENGTHENING HIS BODY AND STIMULATING ORGANIC VIGOR.**

Physical education in the early years should include the aspects of growth and development--thinking of the individual as a whole--in working towards the total growth of the child so that his emotional, social, physical, and spiritual health will progress accordingly at his own rate.

III. **PROGRAMS MUST BE DESIGNED TO PROVIDE A FOUNDATION FOR THE DEVELOPMENT OF LEISURE-TIME ACTIVITIES.**

With increased leisure-time, the individual must know how to engage in healthy, productive, and satisfying activities when he is not actually working. Lifetime sports should, consequently, be offered from the early years to develop skill and interest in such activities.

90 / 91

## EARLY SCHOOL YEARS

### Recommended Exemplars - Physical Education

MODEL

OBJECTIVES: Physical Education Programs will be designed to provide the child with a wide range of experiences to learn and master the basic motor skills. Emphasis will be placed on the correlation between motor skills and academic achievement.

CONTENT: Rarick and McKee, in a study of 20 third graders grouped according to high and low motor proficiency, found that those with high motor proficiency achieved better ratings in reading, writing, and comprehension than the group with low motor efficiency. Studies have also been done with first graders on the relationship of jumping rope to reading tests. The experimental group was subjected to a schedule of jumping rope and the control group did not have this training. The experimental group showed a much higher score on the reading readiness test than the control group. Kephart and Kagerer demonstrated the importance of posture to school achievement. A group of first grade children was rated along a posture scale ranging from "very rigid" to "very flexible." The ratings were then compared with the children's school achievement. The findings showed that the children with rigid posture were at the bottom of the class, while those with loose, comfortable posture were at the top. There was no constitutional difference between the high achievers with flexible posture and the low achievers with rigid posture--they all had good bodies. The underlying movement pattern out of which all motor behavior flows is posture. In order to maintain any posture at all, good or bad, the forces exerted by muscles on one side of the body must balance against those exerted by their opposite numbers. In turn, the nervous system senses this balance, or lack of it, and hastens to make adjustments so that a chosen posture can be maintained. Since posture serves as the core of motor behavior, postural adjustments should be as flexible as possible. If the postural mechanism is stiff and inflexible, the range of action open to a child before the cerebellum casts its veto upon negative action is severely limited. But if a child's posture is flexible, it permits a wide range of activities. In general, if only a few sets of muscles move to maintain posture, it will be rigid. But if the muscles work together, posture will be free and easy--and so will the child's behavior. One can deduce from this that it is very important that muscles and nerves be developed fully as soon as possible for a fully functioning child.

It is recognized that one of the most important functions of elementary school education is the teaching of reading. Physical education can help in the prevention and treatment of reading problems. An authority in this field, Carl H. Delacato, explains movement serialization:

> "If a new-born is placed in a supine position and his head is turned either right or left, there follows a reflex rotation of the spine in the direction of the head. If the pelvis is held fixed, the shoulder girdle and trunk follow the head, if the thorax is held fixed, the pelvis is turned in the opposite direction. If the reflex is strong, the turning of the head leads to a violent turning of the body as a whole in the direction of the head rotatio. All of these movements are efficient and spontaneous and all are serialized."

If the tonic reflex in older children does not take place, it is because of a lack of organization which prevents the serialization required. Poor readers have all the component reflexes and skills required for the reflex, but their neuro-muscular systems are not organized so that the serialization of the various neural components can take place. This helps to explain why poor readers may seem to be uncoordinated in running, jumping, walking, and writing. The serialization process takes place in these processes; the body is standing upright, as a visual stimulus catches the attention, both eyes focus on the stimulus, the head turns toward it; and the neck must follow the motion, setting off the serialized tonic neck reflex. As a result of this, the limbs toward which the face is turned flex, and the limbs on the opposite side extend, and a balanced step is taken. Poor readers seem uncoordinated in that they can accomplish all the movements but they cannot serialize them. Serialization makes for coordination, hence, poor readers seem unable to coordinate at both gross and fine muscle levels. Physical education teachers can aid in reducing the inability to serialize by providing activities which involve muscle-eye-neck movements. By leading children in grade K-4 in a variety of activities which use basic skills for building neuro-muscular coordinations, physical education teachers can provide the basic experiences necessary to insure normal academic achievement.

Delacato believes that as soon as a child develops a hand preference, he should be encouraged to be single-handed. The ages of 5 and 6 are crucial in language development. Children at these ages should be taught games of skill wherein the sighting eye must be the dominant eye. If necessary to the reinforcement of the dominant eye, children should be taught such skills as shooting games, archery, and ball games of the sighting type, so that they can become accustomed to sighting with the eye and the dominant side. Such experiences also reinforce hand-eye coordination. Since physical educators guide the selection of children's activities and encourage certain types of play out of the class, the importance of their influence on the normal development of children should not be underestimated.

Endurance and strength development is closely related to skill development since a child who is unable to participate effectively will either progress very slowly or perhaps will lose interest altogether in physical activity. A regular program of vigorous exercising provides the child with the activity required for the healthy growth and development of the organic systems of the body. Organic power cannot be stored. The heart is a muscle and must be challenged regularly if it is to function efficiently. The physically fit child is alert and responsive. He is able to withstand longer periods of effort and exertion. He tires less easily and thus is ready and available for more learning experiences than if he fatigues quickly.

Children need to experience success and satisfaction from participation in physical activities, and need to reach reasonable levels of achievement in order to participate with and be accepted by their peer group. The child needs challenging activities since tackling a challenge can promote similar attitudes to obstacles encountered outside of school. The result is a more stable emotional development. Children also need competition, but it should not be overly stressed in the lower grades since intense competition does not give sufficient situations for success. Competition in which the child consistently loses is poor preparation for life in a competitive culture. It is necessary to help the child find his strengths and limitations so that his self-respect remains intact. Children should also be taught the meaning of individual differences and how to accept those children of lesser abilities. The child should learn to share and respect the rights of others, to contribute the best he has for the good of the "team" or group, to take his turn, to respect authority and abide by the rules.

METHODOLOGY: In order to meet the needs of this age group, a daily instruction and participation period in physical education should be required. Specific time allotments cannot be designated for the group as a whole because the nature of kindergartners is much different from fourth graders. Since most schools are unable to provide all the necessary time required each day for proper and full organic development by vigorous physical activity, it is hoped that the schools can at least provide the introduction to activities that can be continued after school. It is not only necessary for a child to enjoy and participate in activities in which he is skillful, but he must also have exposure to and be taught the basics of the activities which will give him the opportunity for full development. The kindergarten program should include activities in: (1) Free play or exploration, (2) Low-organization games and contests, (3) Rhythmics, (4) Stunts and tumbling, and (5) Self-testing activities. Activities for each higher grade level should progressively become more challenging and complex so as to be appropriate to the nature of the child. Although each grade level should have certain games or activities selected for their exclusive use, much overlapping and repetition can be utilized in order to "pick up" all students when they become "ready". There is also a need to reinforce past learning experiences, and many times children desire continued participation in specific favorite games. It must be understood that activities and games are merely tools which help the child to learn to move and behave better. There is no panacea in specific game selection. Granted, some games are much better than others because they exhibit a better design for teaching more skills, attitudes, and knowledges. They serve as a superior vehicle for teaching because they promote more and better kinds of behavioral change. The secret, however, rests in utilizing the services of competent teachers who are prepared in the methods of presentation and selection of the most appropriate activities for fostering specific outcomes.

The ideal physical education program for grades 1 through 4 will include activities in the following categories: (1) Low organization activities, (2) Athletic skills and games, (3) Rhythmic activities, (4) Apparatus, tumbling, and stunts, and (5) Body mechanics and fitness activities. Careful selection of activities in each category will be guided by observing a gradual progression in skills. It should be evident that games of low organization used in the first and second grades will develop into lead-up games in the third and fourth grades. A lead-up game may be defined as a game within itself; however, it must include one or more skills, similar rules and simple strategy of an official sport. Lead-up games range from one of utmost simplicity to an increasingly complex game which is almost identical to that of the official sport.

Through careful selection from grade to grade, a definite progression can be developed while the sport skills, rules, and strategy are learned accumulatively to a point where those of the official parent game can be learned with ease. In this way, children can enjoy games which are planned for their level of skill, size, understanding, and interest, from the middle elementary years to high school when they become ready for the official rules of each sport.

Ideally, each elementary school will be provided with optimal physical education facilities which would include a gymnasium, turf-playground, appropriate backstops and goals, multipurpose hard-surfaced area, and grouped playground apparatus for the different age groups. Realistically speaking, however, space for the physical education program can be provided by using classrooms with moveable furniture, multipurpose rooms such as a cafeteria, and outdoor playgrounds which have year-round blacktop areas with painted lines for game boundaries and goals. Also, playground apparatus should be provided and used for teaching the various skills such as hanging, climbing, swinging, balancing, and landing. Careful selection includes swings, slides, and teeter-totters which do little more than give a ride. More appropriate selection would include apparatus for climbing, horizontal ladders, turning bars, wave strides, climbing poles, traveling rings, and sculptured units which promote creativity.

Understanding that an exemplary physical education program would be characterized by the inclusion of a broad variety of activities, the equipment necessary for implementation would also be included. Sports and games equipment for each school would be selected according to the activities used. The one guiding principle which should be followed thereafter is that each child should have a piece of equipment with which to learn rather than to stand in line doing nothing while waiting his turn.

## EARLY SCHOOL YEARS

### Present Practices - Health Education

Health has been described in comprehensive terms as a state of complete physical, mental, and social well-being and not merely the absence of disease. Schools have made relatively little progress in the area of health and safety. There is a misconception among our school children about the meaning of health, and the deviation from good health practices by school age children is alarming. The ills arising from these misconceptions are numerous and varied, and communities across the country share a growing concern for the lack of prudent health practices among students. Too many students are disabled by prevalent diseases. One conclusion is clear: In the majority of our public schools, health instruction is either nonexistent or ineffective in meeting the needs of a rapidly changing and complex society.

In the early school years, health instruction is generally given by a classroom teacher who is ill-prepared and who has no specifically defined objectives. She knows what is "good" for students, but health instruction at this level is usually unorganized and ineffectual. Health courses are dull and unattractive, largely because the teacher presumes to choose the material to be taught. Consequently, the student finds little of interest in the program. There are a few programs in which an adequate effort is being expended, but such programs are rare.

Although health education is often incorporated in the home economics curriculum in later years, this is not the case in the early school years in Nevada. In Nevada there is no one at this time employed to work in home economics in the elementary schools. The benefits of family life education units are, therefore, not available. A glance at elementary school textbooks is all that is needed to see that the elementary school curricula offers an opportunity to support and enrich programs through family-life units.

### Emerging Mandates - Health Education

I. **HEALTH INSTRUCTION, TO BE OPTIMALLY EFFECTIVE, MUST FUNCTION IN A PLANNED KINDERGARTEN-THROUGH-GRADE-TWELVE CONTINUUM WITH PROPER ATTENTION GIVEN TO SEQUENCE AND SCOPE OF CONTENT.**

Uncoordinated, special interest health instructional efforts, exemplified by over-emphasis on particular diseases or on family or community health programs should be avoided.

II. **HEALTH INSTRUCTION MUST BE TREATED AS A SEPARATE SUBJECT WITHIN THE ELEMENTARY GRADES.**

It may be combined in certain aspects with other subject areas such as social studies, science, or physical education.

III. **A COMPREHENSIVE HEALTH PROGRAM MUST BE DEVELOPED FOR EARLY SCHOOL EDUCATION ADHERING TO THE FOLLOWING OBJECTIVES: (1) STUDENTS MUST SHARE IN THE GENERAL PLANNING; (2) COURSES MUST DEAL WITH PROBLEMS OF EVERYDAY LIVING; (3) STUDENTS MUST PARTICIPATE ACTIVELY IN FACT-**

FINDING DISCUSSIONS, FIELD TRIPS, AND ACTIVITIES DESIGNED TO AID IN GRASPING CONCEPTS AND FORMING CONCLUSIONS.

If these objectives are an integral part of the program it will be productive, effective, and useful at all levels of the continuum.

IV. IN THE EARLY SCHOOL YEARS, HEALTH INSTRUCTION SHOULD BE GIVEN BY THE CHILD'S CLASSROOM TEACHER.

The elementary classroom teacher should be as well prepared to teach health as he should be to teach any other major subject area.

V. SUFFICIENT TIME MUST BE DEVOTED TO HEALTH INSTRUCTION AT THE ELEMENTARY LEVEL TO ALLOW EACH PUPIL TO ACHIEVE PHYSICAL, MENTAL, AND SOCIAL WELL-BEING.

Priority placed on health instructions should be such that it is not relegated to take place when there is nothing else to do. Meaningful blocks of time must be assigned on a regular basis if health instruction is to have its intended impact.

VI. SUFFICIENT IN-SERVICE HEALTH EDUCATION COURSES MUST BE PROVIDED AT THE LOCAL LEVEL TO ALLOW PRESENTLY EMPLOYED CLASSROOM TEACHERS TO HANDLE THE SUBJECT MATTER CONFIDENTLY.

The curricula for such in-service programs should include content areas and not be limited merely to instruction in methods and materials.

VII. HEALTH INSTRUCTION MATERIALS AT ALL LEVELS MUST BE SUPPLIED IN QUANTITIES WHICH WILL MEET THE NEEDS OF STUDENTS AND THEIR TEACHERS.

These materials should be interesting, timely, and scientifically accurate. This should include audio-visual materials of all sorts including pictures, slides, tapes, and appropriate models.

VIII. FAMILY-LIFE EDUCATION MUST BE INCORPORATED INTO THE CURRICULA OFFERINGS IN THE EARLY SCHOOL YEARS.

Such a program must deal with practices, values, and attitudes affecting family relationships-- a powerful agent for strengthening the individual's most important environmental influence. The family unit is the bridge connecting a child to society. Where strong family life exists, attitudes of mutual respect, loving concern, and a sense of personal responsibility are developed, and family members become good citizens with concern for others and a willingness to use their potential to benefit society. By providing sensual information about family living in the curriculum, the program helps give to students a background for making decision in this important area of their lives.

# EARLY SCHOOL YEARS

## Recommended Exemplars - Health Education

### MODEL I: A General Health Program

OBJECTIVES: The health program during the early school years will develop in the student the desire to further investigate health problems. The program will be student-centered. Problem areas will be emphasized. Continued emphasis will be placed on attitudes toward health.

CONTENT: The exemplary program will include a follow-up of the program prescribed for early school years. The program will meet needs of students as they mature and face new health problems. The program will be based on continued evaluation and selection of current materials. General concepts will be emphasized rather than review of factual materials. Students will learn how to use health service.

When concepts are taught, nothing will be left to the imagination. For example, when discussing the nervous system and emotions, adjustment to school, emotional upset, worry will be included in the discussion. Courses will not omit discussion of quackery or controversial subjects. Students will develop a desire to investigate health problems, both physical and mental. The course will develop sequentially around an awareness of physical, mental, and emotional health, utilizing whatever factual information is required.

METHODOLOGY: The exemplary program will be divided into curriculum blocks in grade level. The program will utilize community resources such as local nurses' or doctors' associations, the Red Cross, mental health associations, etc. Small group instruction will be fully utilized. Field trips to medical facilities will be arranged. In order to develop necessary concepts, teachers will follow a program-type text.

### MODEL II: Family Life Education

OBJECTIVES: At this level, family-life education can contribute to the child's concept of himself as a person of worth; it can stimulate growth in self-understanding and personal responsibility; it can increase his competence in developing and maintaining mutually satisfying inter-personal relationships; and it can suggest methods of seeking solutions to personal and family problems through increased insight into the needs and behavior of individuals.

CONTENT: Some concepts and understandings to be developed are: That every human being is a person of intrinsic worth and dignity; that he, himself, is a worthy, contributing member of society--a person who can succeed but who can accept failure without being defeated; and that a person's personality is influenced by his relationships with adults, other children, and his own class group.

METHODOLOGY: In helping a child to achieve self-understanding and emotional development, the relationship of the teacher with the child is an important element. A class environment where a teacher recognizes the emotional needs of each child and where class size or instructional arrangements allow the teacher to know each child--these are essential. Also, an evaluation system which helps a child to know himself, his strengths and weaknesses, and which shows him how he can grow--this helps him to understand himself.

Some suggestions for classroom experiences to develop self-understanding are: Reading stories and talking about feelings of children and their families and friends; having children talk about things they do well and things hard for them to do; having children talk about how they can learn from failures; helping children assess their own work and progress and to set realistic individual goals; using classroom situations to initiate discussion of things children are not afraid to try, or are afraid to try, and by discussing fears; reading and discussing stories of children who had fears; and discussing stories or classroom situations involving success experiences and what it means to be successful.

To help children understand their emotions and feelings, children can collect and draw pictures of children showing different emotions. They can indicate feelings shown, discuss what situations caused those feelings, and what feelings make us do.

Children can dramatize situations which show different feelings, look at pictures which show expression of emotions, and discuss what makes people feel the way they do. They can have experiences expressing feelings through the arts, by acting out stories, by discussing what happens in a group when feelings are not controlled; and they can discuss fears.

Classroom experiences can help children experience the joy of self-fulfillment by themselves and others. They can draw or bring pictures of "people who help us"; and they can read stories about and discuss the roles of workers in the community. For example, they can talk about "is one job less important than another." They might talk about times when they were proud of their mothers, fathers, brothers, or other relatives. Or they might reply to the question, "If you had three wishes for all the boys and girls of the world, what would you wish for them?"

Children could be encouraged to describe feelings they have had when they have thrown and caught a ball, skipped rope, etc; feelings they have had when they have gotten their spelling right; their feelings when praised by their parents; their feelings when they have shared something they liked with someone else; or the feelings they have had when they have done something to help others.

To help children understand their relationships with other adults, classroom experiences such as the following could be planned: Sketching pictures of mothers, fathers, policemen, firemen, religious leaders, teachers, and discussing relationships of these authority figures to a child; discussing how and why people are given authority--umpires, babysitters, teacher-substitutes. To help children develop wholesome relationships between children, to recognize and appreciate individuals, and to understand each person's contributions to the group, the following types of classroom experiences are suggested: Students could bring dolls of other lands, and pictures of families from other lands, and see films and read stories about people of other lands; they could talk about some beliefs and customs in these families that differ from ours; and they could discuss how many ways there are to do the same thing. For example: Serving dinner, eating, playing games; they could play games children in other lands play; in class they could entertain visitors with different backgrounds; they could read stories about friends and family loyalty; they could write and tell stories about friends; they could describe how mothers and fathers help each other in the family; discuss what jobs there are in families, and how family members can help each other. Children could discuss responsibilities in the classroom and how each class member can help. They may act out what happens when they all speak at once, won't take turns, break toys, etc. They could discuss their responsibilities to younger children.

## EARLY SCHOOL YEARS

### Present Practices - Music Education

Much variation in music curricular guidelines, the type and quantity of music teaching materials, and staffing arrangements exists from school to school and from county to county throughout Nevada. Often, however, music in the early school years is segmented by an "activities approach" in which music is presented in an unsystematic way through singing, simple instruments, rhythms, appreciation, listening. Even this approach often dissolves into just listening and rote singing activities, particularly if the classroom teacher receives no direction or teaching assistance from a music specialist. The services of music specialists are utilized in portions of the larger districts; however, in most elementary schools in the State, the self-contained classroom approach prevails, particularly in the early school years. Indeed, there is only one county-wide elementary music supervisor in Nevada. Thus, when the children need specialists in music the most, they have them the least.

### Emerging Mandates - Music Education

I. **MUSIC EDUCATION IN NEVADA MUST BE BUILT ON A BASIC PROGRAM OF GENERAL MUSIC INSTRUCTION WHICH STARTS IN THE FIRST GRADE AND CONTINUES THROUGHOUT ALL OF THE UPPER LEVELS OF PUBLIC EDUCATION.**

The concept of the music program as a carefully planned continuum must replace the present unstructured, hit-or-miss approach. Meaningful sequences must replace present fragmented programs.

II. **EVERY CHILD IN NEVADA MUST BE PROVIDED WITH FUNDAMENTAL AND COMPREHENSIVE LEARNING EXPERIENCE IN MUSIC, NOT WITH JUST OCCASIONAL ACTIVITIES IN MUSIC.**

The curriculum committee of the 1967 Tanglewood Symposium recommends that the separate activities approach that has characterized elementary music instruction in the past should be replaced by new elementary level music curriculum in which major emphasis would be placed on "the study of music in four broad areas of music experience: (1) Understanding many types of music through guided listening or performance; (2) Studying music through singing, playing instruments, moving to music, or a combination of these; (3) Arranging and composing music for instruments and voices; and (4) Understanding and using music notations."

III. **THE MUSIC PROGRAM MUST NO LONGER BE LIMITED BY THE CONTAINED CLASSROOM.**

The Tanglewood Committee recommends further that the music education profession must "move away from the concepts of the self-contained classroom to the idea of the self-contained school, and from the teacher as a general practioner to the teacher as a clinical specialist." This would "eliminate the deplorable musical-opportunity lottery, in which each year a child must chance whether or not he will have a worthwhile experience with music in his self-contained classroom."

102/103

# EARLY SCHOOL YEARS

## Recommended Exemplars - Music Education

### MODEL

OBJECTIVES: Music education will be designed to provide general music instruction for all children on a regular basis rather than through occasional activities. Music instruction will be provided by "musician-teachers" rather than by "generalist-teachers."

CONTENT: Music curricula will be developed which reflects recent trends in innovation and technology. Curricular organization will reflect a conceptual-behavioral approach to the subject matter of music.

METHODOLOGY: Leaders in the field of early childhood education and of Headstart will be consulted during the development of programs for making genuinely effective use of music in the classroom.

Staffing plans and ratios will be constructed so as to allow at least one music teaching specialist for each elementary school building (except perhaps the buildings with very small enrollments). This specialist will be integrated into the school's total educational plan as an indispensable team member, not just to provide frosting which can be easily removed without real damage to the school's program. This is not to say that the elementary classroom teacher will have no place in a comprehensive music program. On the contrary, he will have an important function to fill, but in order to do this he will become intimately and actively involved in the music program rather than being absolved of classroom duties whenever the music specialist enters the classroom.

# EARLY SCHOOL YEARS

## Present Practices - Art

While art work in one form or another forms an important part of the child's early school years activities, the quality of the instruction and of the variety of offerings varies widely among Nevada schools. In most cases the art instruction is determined by the limitations of the self-contained classroom. There is some interchange among teachers within the building so that those especially interested in art and prepared to teach art may work with two or three different classes. There are no art supervisors at the present in Nevada, but some counties employ itinerant art teachers who may serve several elementary schools and whose schedule does not allow for supervisory activities.

## Emerging Mandates - Art

I. **EVERY ELEMENTARY SCHOOL CHILD SHOULD RECEIVE REGULARLY SCHEDULED ART INSTRUCTION FROM A CERTIFIED ART TEACHER IN A SPECIFICALLY EQUIPPED ART ROOM FOR A MINIMUM OF ONE HUNDRED MINUTES PER WEEK.**

A sequential, creative, and varied program requires this kind of concentration and equipment. Any program providing less than this will be fragmented, uneven in quality, and will tend to degenerate into a program which uses art activities merely as a change of pace in the school curriculum.

II. **SPACE AND MATERIALS MUST BE PROVIDED FOR SUPPLEMENTARY, INDEPENDENT, AND INDIVIDUAL ART EXPERIENCES IN THE REGULAR CLASSROOM.**

The carryover value of the regular instruction time in art is enhanced by allowing the child both time and material to pursue his special artistic interests in conjunction with his regular classroom activities.

III. **EVERY ELEMENTARY ART TEACHER SHOULD HAVE AT LEAST ONE PERIOD A DAY FOR ADVANCED PLANNING AND PREPARATION OF MATERIALS AND DISPLAYS.**

Quality of the art program depends upon careful planning, and the spontaneity and the variety that are essential to a successful art program can be achieved only by allowing the teacher adequate time for planning and preparation.

## EARLY SCHOOL YEARS

### Recommended Exemplars - Art

MODEL

OBJECTIVES: The art program in the early school years attempts to develop two aspects: Seeing and feeling visual relationships, and the making of art.

CONTENT: In the early school years the major emphasis is on the making of works of art with a variety of materials and processes. At the same time, the learning situation should include opportunities for the child, within the limits of his intellectual, social, and aesthetic maturity, to gain a beginning knowledge about art objects in his culture, and to develop some basic ability to judge the art products of himself and his peers critically.

The program should allow for creative work in many media. Design, sketching, clay modeling, painting, and numerous other related activities are essential to give the program proper artistic dimension.

METHODOLOGY: The art program for the early school years must provide for the development of eye-hand coordination and skill. It must develop, within the child's potential, a satisfactory level of artistic performance on this basis. The child must be given a wide variety of materials and must be allowed to experiment with them freely. Artistic discipline should be acquired gradually and never at the expense of the creative impulse of the child.

## EARLY SCHOOL YEARS

### Introduction - Special Education

The Nevada State Board of Education and the Nevada State Department of Education have established and maintain a Division of Exceptional Pupil Education which serves the special education programs for physically and mentally handicapped minors as defined in the Nevada School Code, Sections 388.440 through 388.550.

It is the Board's philosophy that school districts have the responsibility of providing a program which meets needs of children, but districts are equally responsible for knowing when children are unable to use the program provided and for providing appropriate supplementary help. Special Education is primarily an adjustment of the materials and techniques of instruction that will provide this supplementary help. In certain cases it requires major changes in the basic curriculum, but more often the fundamental needs of the handicapped child are the same as those of all children. Consequently, the philosophy of Special Education indicates a belief that the goals of education established for most handicapped children are best attained by remaining a part of the regular school rather than by being separated from it. It further indicates that although supplementary help is needed, the school principal and his faculty have a basic responsibility for the handicapped child as they do for all children enrolled in the schools of Nevada. Finally, it indicates that Special Education has a responsibility to provide not only a specialized program, but to also provide supplementary help that will enable the handicapped child to make use of the regular program whenever possible.

Special Education is based on the concept that it is in the best interests of the individual and the community to expend effort and time in helping the handicapped child to reach his optimum development and as much self-sufficiency as possible, rather than relegating him to a life of dependency. This responsibility and the effort required to achieve it increase in proportion to the severity of the handicap, but even with the most severely handicapped, the emphasis is on preventive and curative help rather than on custodial care. Above all, the philosophy of Special Education emphasizes the importance of the individual and the extension to him of an opportunity for education no matter what his disability.

Section 388.440 of the Nevada School Code defines the handicapped child as follows: "Physically or mentally handicapped minor defined. As used in NRS 388.440 to 388.550, inclusive, 'Physically or mentally handicapped minor' means a physically or mentally defective or handicapped person under the age of 21 years who is in need of education. Any minor who, by reason of physical or mental impairment, cannot receive the full benefit of ordinary education facilities shall be considered a physically or mentally handicapped person for the purpose of NRS 388.440 to 388.550, inclusive. Minors with vision, hearing, speech, orthopedic, mental and neurological disorders or defects, or with rheumatic or congenital heart disease, or any disabling condition caused by accident, injury or disease, shall be considered as being physically or mentally handicapped."

In the handbook "Educational Assessment for the School Districts of

110/ 111

Nevada", the State Department of Education defined the areas of exceptionality as:

A. Mentally Retarded

    1. Educable
    2. Trainable

B. Physically Handicapped

C. Visually Handicapped

    1. Blind
    2. Partially seeing

D. Auditorially Handicapped

    1. Deaf
    2. Hard of hearing

E. Multiply Handicapped

F. Educationally Handicapped

G. Home and Hospital

H. Speech Therapy

Today, comprehensive services for all the above areas of exceptionality exist in the two larger counties. Unfortunately, there are still seven counties in our State without provisions for exceptional pupil education.

Mr. Lincoln Liston, Associate Superintendent, Division of Administrative Services, has supplied the following figures as State total enrollment by enrollment and attendance report categories. These are the official enrollment figures for the eighth school month, 1967-68.

| HANDICAP | TOTAL STATE ENROLLMENT |
|---|---|
| Emotionally Disturbed | 540 |
| Hard of Hearing | 46 |
| Mentally Retarded | 1,592 |
| Orthopedically Handicapped | 55 |
| Speech Correction | 7 |
| Visually Handicapped | 0 |
| Homebound | 171 |
| Special Education Enrollment | 2,411 |

It must be noted that many children now receiving Special Education services are not reported in this enrollment because their attendance has been reported as a member of a homeroom and the services rendered were on a part-time basis.

A significant alarming trend in the present practices of Special Education in the State of Nevada is the phasing out of the educational curriculum-established Special Education classes and programs. To date, five such classes in operation during the 1967-68 school year will not be continued during the 1968-69 school year. It must also be noted that only two new Special Education classes will be established in the entire State for the 1968-69 school year. This clearly indicates a regression of the Exceptional Pupil Education Program in the State of Nevada.

It is of critical importance that positive action be taken by legislators, the State Board of Education, the State Department of Education, local school boards, local school district administrators, and personnel of other related agencies, to halt the regression of Exceptional Pupil Education in our State.

## EARLY SCHOOL YEARS

### Present Practices - Special Education

### Educable Mentally Retarded

Comprehensive services for the Educable Mentally Retarded are now provided in three counties, Clark, Ormsby, and Washoe. Although all programs for the Educable Mentally Retarded in the early school years level are of the same character and nature, they are designated by different titles at the district level. Clark County uses the term Primary Educable Mentally Retarded. Ormsby County employs the term Primary and includes children up to the ages of ten, and Washoe County designates this level as Unit 1, Educable Mentally Retarded, and enrolls children from ages 6 through 9.

Generally, the early school years classes include those children who would regularly attend grades 1 through 3 and organization of these classes involves factors such as integration into portions of regular school program, grouping, and special help in the areas of social and emotional growth.

Partial services for early school years Educable Mentally Retarded children are provided by Churchill, Douglas, Elko, Lincoln, Lyon, Nye, and White Pine Counties. Although these districts have made an honest attempt to serve children identified as Educable Mentally Retarded at this level, because of the remoteness and unique nature of the sparsely settled political divisions, it has not been feasible to establish comprehensive programs similar to those in the larger districts. Unfortunately, there are still six counties in our State without programs for the early school years Educable Mentally Retarded children.

### Trainable Mentally Retarded

Four of Nevada's seventeen counties have programs for the trainable. Of these four, two counties maintain segregated schools. The Helen J. Stewart School in Las Vegas, Clark County, employs ten full-time teachers; and of these ten, four work with students in the early school years.

The Washoe County School District serves trainable retarded children in two segregated schools. The McKinley Park School has a staff of six teachers, two of these at the primary level. In addition to the McKinley Park School, the Washoe County School District, through a cooperative agreement with the Nevada State Department of Health, Welfare, and Rehabilitation, operates the educational program for the severely retarded at the Nevada State Hospital. In 1966, the Washoe County School District established the Behavioral Institute at the Mentally Retarded Wards of the Nevada State Hospital and implemented a program stressing behavior modification through operant conditioning.

All programs for these students are established for the purpose of providing experiences that will enable youth to develop personally and socially to the extent that they can become economically useful in their own homes. Some, with the training provided by the school programs, will be able to participate in a sheltered workshop type of environment. A few will be able to achieve a limited degree of independence and self-direction in simple types of regular employment in the community with the help of the school and local businesses. It is to achieve these important goals that programs for the trainable mentally retarded are initiated and maintained. Churchill and Ormsby Counties have established partial programs serving trainable retarded children for the early school years.

## Physically Handicapped

For physically handicapped children in their early school years, classes are limited to the two large districts of Nevada. In these counties, classrooms have been specially designed so that there is ample room for wheelchairs, orthopedic equipment, and the individually constructed desks that some of the students require. Handrails are placed in traffic areas and chalk rails and other fixed equipment have been padded or placed so they will not constitute a danger. The restrooms, play areas, and classrooms are all readily accessible to students in wheelchairs; and an attendant is available for those students requiring help in meeting their personal needs. Physically handicapped students are, for the most part, capable of following the same curriculum as the typical student. Often, however, they are behind other students because they have been confined to hospitals or because fatigue prevents introduction of the complete curriculum. Great effort is made, therefore, to enrich the special curriculum in those areas most affected by the student's handicap.

## Visually Handicapped

### A. Blind

Blind children of the early school years age level are served by classes in Clark and Washoe Counties. In addition to qualified teachers these counties also employ professional personnel including a braillist tosupport and reinforce these classes. Close cooperation is enjoyed in this category with the Nevada Services for the Blind and this agency has been a major contributor to its support and guidance.

### B. Partially Seeing

Clark and Washoe Counties conduct classes for this category of exceptionality at the primary as well as all levels. In these counties, services are extended to children who have a vision problem severe enough to cause learning difficulties without extra help. This includes children with a visual acuity ranging from 20/70 down to total blindness; who have a good acuity but a severe limitation of visual field; or who are undergoing medical care of the eyes and need help because of it. In the present programs, each child goes through the curriculum for his grade. He is provided with texts and other materials to enable him to do his work.

## Auditorially Handicapped

### A. Deaf

Clark County has two classes and Washoe County has one class for deaf children at the early school years level. Programs in these districts concentrate on language development with emphasis on oral as well as written language. Children are taught to read lips rather than learning to speak with their hands. Children who enter the pre-school program at the age of three begin to socialize, to identify objects and colors and to take part in nursery school activities. They receive individual instruction in speech and lip reading daily. At the primary level, they continue to receive specialized auditory training and learn reading and writing.

B. Hard of Hearing

Three Nevada school districts have programs for the hard of hearing child of early school years age. These are Clark, Washoe, and Ormsby Counties. Services are extended to children with hearing problems severe enough to cause learning difficulties without additional help. These programs serve children with a mild hearing loss ranging down to, but not including, those with total deafness.

## Multiply Handicapped

Only the Clark County School District maintains special classes for this category of exceptionality. Classes are conducted for primary age students at the Variety School in Las Vegas. In other counties with Special Education programs, multiply handicapped children are admitted to the programs aaccording to their most urgent needs.

## Educationally Handicapped

This category of exceptionality includes students identified as emotionally disturbed and neurologically handicapped. Clark County, Churchill County, Mineral County, Washoe County, and White Pine County schools have programs operating under this title. Generally, children in these two sub-categories are enrolled in Special Education classes corresponding to the type of exceptionality that best meets their specific needs.

The programs for the neurologically handicapped children at the early school years are characterized by factors which tend to impede the normal learning process. Many exhibit distractibility and an inability to refrain from responding to any stimuli. This creates a severe problem in respect to the mechanics and routine required in a regular classroom. In addition, and possibly even more disabling in respect to education, is the inability to perceive educational concepts as a whole or total. Instead, these students often react to parts of a total idea and have difficulty seeing the relationships between parts, which is necessary for mastery of an educational concept. Still another problem exhibited by many of these students is perseveration or an inability to shift from one type of educational activity to another.

## Home and Hospital Programs

Home and hospital services to children at the early school years or primary level are offered to students enrolled in Clark and Washoe Counties. These districts provide individual instruction for school age students confined to their homes or to hospitals.

## Speech Therapy

Comprehensive speech therapy programs are established in Clark and Washoe Counties. Partial programs are to be found in Churchill and Ormsby Counties. Other counties in Nevada are served by the Elks Club Major Project.

Speech therapy in the early school years is most important as this is the age level when corrective measures are most effective.

# EARLY SCHOOL YEARS

## Emerging Mandates - Special Education

As the handicapped child reaches school age, the "continuum of care" becomes, primarily, the responsibility of the school. Of course, continued cooperation must take place between various agencies in the community and in the government to permit fluidity of movement of the individual from one type of service to another while maintaining a sharp focus on his unique requirements. The basic philosophy of public school education, however, indicates where the greatest responsibility in the "continuum of care" lies. There are three important mandates that emerge from an examination of the present practices of the early school years.

**I. SPECIAL EDUCATION PROGRAMS IN THOSE SCHOOL DISTRICTS WHERE NO SUCH PROGRAMS ARE CURRENTLY AVAILABLE BUT WHERE A NEED DEFINITELY EXISTS MUST BE ESTABLISHED.**

During May 1968, an evaluation team under the direction of the Nevada State Department of Education, Division of Exceptional Pupil Education, surveyed the seven school districts in the State where no services in Special Education currently exist. The results of this survey indicate over 500 school age children are in need of diagnostic evaluation for possible placement in Special Education programs.

**II. PROGRAMS MUST BE PROVIDED FOR CHILDREN WITH LEARNING DISABILITIES AND FOR CHILDREN WHO ARE GIFTED.**

The United States Office of Education identifies students with learning disabilities as "non-achievers" and estimates approximately five percent of the total school population have this handicap. The gifted child is one who exhibits extreme knowledge and/or talent in one or more areas of learning and it is estimated that two percent of the total school population falls in this category. At the present time, there are no programs currently in existence for this type of child in the State of Nevada.

**III. PROGRAMS MUST BE DEVELOPED TO PROVIDE QUALIFIED STAFF IN MULTIPLE AREAS TO AID THE RURAL SCHOOL DISTRICTS.**

Since many districts in Nevada do not have sufficient school population to warrant personnel in a given area, it becomes apparent that a specialist qualified in more than one area is needed to serve several districts.

# EARLY SCHOOL YEARS

## Present Practices - Guidance and Counseling

In a country that values freedom of choice, expanded opportunities for its citizens, conservation and promotion of talent, it is not surprising that a system of pupil assistance, called guidance, would develop within the educational structure. The guidance movement in the United States dates back over half a century, and no other country has yet developed or promoted a broad program of pupil assistance like it. The chief proponent of the guidance program in the educational setting has become the professional school counselor.

Although a few school districts in Nevada employed school counselors prior to 1958, the passage of the National Defense Education Act that year signified the first broad support for counselors and the guidance movement in the State. Title V-A of the National Defense Education Act, as amended in 1965, provided money for school districts on a matching basis which sparked the tremendous growth of guidance services throughout the State.

The guidance program is a concern of the entire staff of the school system. Classroom teachers, the school counselor, the nurse, the visiting teacher, the principal, the superintendent, and the Board of Trustees all have important parts to play in the organization and support of a planned guidance program.

Any discussion of the work of the elementary school counselor must be placed in its proper perspective. In 1967-68 there were only eleven elementary counselors in the State of Nevada. Prior to 1965 there were none.

Nevada's elementary school counselor functions as a counselor, consultant, and coordinator. The degree of emphasis and time spent in these roles differs greatly from the secondary counterpart; however, work at the elementary level complements and supports the secondary program. The direction is toward a sequential guidance program, grades K-12, and not a discontinuity of purpose and activities between the two levels. For example, as a counselor, the elementary worker spends time with groups and individual pupils having problems in growing up, in learning or adjusting to the learning environment. As a consultant, the counselor will work with the teacher to improve the classroom learning climate and assist the teacher to understand the needs of the pupils in the classroom.

Parents are also apprised of their children's needs and potential through consultation with the teacher or counselor. The elementary school counselor as a coordinator will integrate the resources of the school and the community to meet the developmental needs of the pupils. Guidance activities, group and individual experiences are planned and developed to promote increasing self-understanding, orientation to the world, and educational planning.

The fundamental premise of elementary school guidance activities is that while the pupil's major decision points will be some years in the future, readiness activities in the middle school years must be accurate and carefully planned.

In general, the following activities are now valued for pre-school and early school programs:

1. Adjustment of school entry age based upon previous determinations of readiness for activities of the school.

2. Use of guidance specialists as consultants to parents and Headstart personnel and nursery school agencies to help the school determine social-emotional-intellectual readiness levels of individual children.

3. Assist kindergarten teachers in providing school orientation programs for youngsters and their parents prior to enrollment in formal kindergarten activities.

4. In school, enlarge the child's awareness and concepts of the world of work.

5. Help the child to realize that there are many values associated with satisfaction in working.

6. Help the child to understand his strength and limitations in relation to individual differences.

7. Help the child to appreciate the value of learning as part of his development as a person.

8. Help the child to understand that change is a part of growing up.

9. Help the child to understand his own emotions and motivations and those of others.

These activities and objectives are related to the occupational, educational, and personal development of the child. The elementary counselor, in conjunction with other school personnel, and the child's parents all contribute to the attainment of these and other objectives of the guidance program.

# EARLY SCHOOL YEARS

## Emerging Mandates - Guidance Counseling

I. THE PRIMARY OBJECTIVES OF THE PLANNED-GUIDANCE PROGRAM MUST BE TO PROMOTE THE OVERALL DEVELOPMENT AND GROWTH OF THE INDIVIDUAL PUPIL AND TO HELP HIM IN MAKING HIS PLANS, CHOICES, AND ADJUSTMENTS IN MEETING HIS PROBLEMS AND IN UNDERSTANDING HIMSELF IN THE LIFELONG UNDERTAKING OF SELF-DEVELOPMENT AND DIRECTION.

The guidance program must be viewed in light of the unique contributions it can make to pupil advancement rather than solely as an adjunct to the instructional program.

The objectives of the total educational program are too broad to be shouldered by the instructional program alone.

The instructional program and the instructional-type experiences are not in themselves sufficient to provide all of the ingredients for total pupil growth and development, yet guidance should not be the hub around which the educational program is built. The modern school in Nevada should provide both a planned instructional program and a planned guidance program in order to meet the objectives of education.

II. THE GUIDANCE PROGRAM MUST BE PRIMARILY DEVELOPMENTAL RATHER THAN PROBLEM-CENTERED.

This implies that guidance services are for all children rather than merely for those experiencing severe problems of adjustment or learning.

III. THE COUNSELOR MUST ASSUME A UNIQUE FUNCTION TO PERFORM--TO SEE THAT THERE IS AN ADEQUATE PROGRAM OF PLANNED ACTIVITIES TO HELP ALL PUPILS TO INCREASE THEIR SELF-UNDERSTANDING AND DECISION-MAKING ABILITIES.

In this respect the school counselor differs from the school's psychologist doing primarily diagnostic child-study work, a social worker working primarily with families on attendance problems, or the instructional supervisor responsible for the improvement of teaching and the instructional program.

IV. GUIDANCE MUST BE CONTINUOUS THROUGHOUT THE GRADES.

The guidance program merges with instruction at certain times. It emerges again when specialized activities at strategic points may be emphasized or when professional and program attention is given to the problems of individuals in an intensive way or when consultation is given to the school on behalf of the pupil.

V. AS THE COUNSELOR-STUDENT RATIO BECOMES MORE FAVORABLE AND AS SUPPORT FOR ELEMENTARY SCHOOL COUNSELORS BECOMES MORE GENERAL, THE WORK OF THE ELEMENTARY COUNSELOR MUST SHIFT FROM A CRISIS-PROBLEM ORIENTATION TO THE DESIRABLE GOAL OF COORDINATING AND PARTICIPATING IN A

PROGRAM DESIGNED TO HELP ALL CHILDREN TO ATTAIN MAXIMUM UTILIZATION OF THEIR POTENTIALS.

The emphasis on preventative counseling is necessary to avoid the crises which limit the counselor to attempt to remediate problems which need never have arisen.

## EARLY SCHOOL YEARS

### Recommended Exemplars - Guidance and Counseling

MODEL

OBJECTIVES: All pupil personnel services will function to facilitate the progress and development of individual pupils. All staff members in pupil personnel services will function in cooperation with other school staff members in translating the work with individual pupils into broad educational planning.

CONTENT: A comprehensive pupil personnel service will include individual guidance and counseling services, school psychological services, school health services, school social work services, and attendance services.

METHODOLOGY: Guidance and counseling programs will function to:

1. Assist all pupils in assessing and understanding their abilities, aptitudes, interests, and educational needs;
2. Increase their understanding of educational and career opportunities and requirements;
3. Help students make the best possible use of these opportunities through the formulation and achievement of realistic goals;
4. Help students attain satisfactory personal-social adjustment; and
5. Provide information useful to school staff members, parents, and community in planning and evaluating the school's total program.

Coordination with other pupil personnel services and appropriate community organizations is very important. School counselors function in essential guidance activities such as:

1. Collecting, organizing, and interpreting information appropriate to an understanding of the pupil's abilities, aptitudes, interests, and other personal characteristics related to educational-career planning and progress and satisfactory personal-social adjustment;
2. Making available to pupils, parents, and teachers information useful to them in understanding educational and career opportunities and requirements, and personal and social relationships related to the choice of and progress in an educational program for an occupational field;
3. Providing individual counseling to:
   (a) Help the pupil and parent develop a better understanding of the pupil's personal characteristics and potentialities,
   (b) Help the pupil, with parent assistance, make educational and career plans in the light of understanding of self in relation to opportunities and requirements,

(c) Stimulate and assist the pupil in carrying out appropriate plans for education and career, and

(d) Prepare selected pupils, and their parents, for referral to other appropriate sources of assistance;

4. Providing placement services for individual pupils to assist them in:

   (a) Making appropriate transitions from one school level to another, one school to another, or school to employment, and

   (b) Obtaining financial aids to continue their educational development, such as scholarships and loans, obtaining part-time or summer employment;

5. Providing administrators and teachers with information about individual pupils, or pupil groups, that is useful in planning and in providing school programs to facilitate the full development of pupil potential;

6. Collecting, analyzing, and interpreting information needed to evaluate with a guidance and counseling program, providing guidance information which may be used in evaluating the school's program in terms of its ability to develop human potential.

The school psychological services function to supplement the school's reservoir of information identifying the individuality of each child, his capacities, achievements, interests, potentialities and needs. One principal role is to study individual children experiencing acute problems of educational development in order to furnish diagnostic information and suggest remedial programs concerning the psychological aspects of these problems. Another important function of this service will be to assist the school staff in developing insights into the psychological needs of pupils necessary to the promotion of efficient learning and to the optimum development of all pupils. It will be the function of the school psychological services to:

1. Cooperate in the development, organization, and administration of a basic group testing program for the school system;

2. Conduct detailed individual analysis of particular children in order to furnish deeper insights into their educational problems;

3. Furnish clinical and diagnostic information concerning the particular emotional and psychological problems which interfere with the child's effective learning;

4. Suggest and recommend programs designed to remedy these psychological problems;

5. Assist in interpreting to teachers and parents psychological data concerning individual children;

6. Consult with teachers in the development of curricular adaptations and classroom practices for pupils with special needs;

7. Consult in the development and operation of the total school program for exceptional children;

8. Work in a team approach with other school personnel for the solving of educational problems of pupils;

9. Assist in developing efficient referral procedures for cases requiring the diagnostic or therapeutic services of specialists;

10. Orient staff members to be alert to the symptoms of psychological disorders in children and to refer any children displaying such symptoms;

11. Cooperate with other staff members in the development and use of psychological data;

12. Interpret to school, parent, and community groups the purpose and program of the school psychological services;

13. Furnish leadership in promoting sound mental health practices throughout the school program and identify with community health programs.

Specific functions of the school health services program will include:

1. Periodic health examinations and adequate follow-up for every child;

2. Continuing day-to-day health services is the responsibility of the school nurse, the dental hygienist, and (in larger school systems) specialists in vision, hearing and health. (In smaller school systems, this responsibility will be shared by school physicians and school nurses;

3. The maintenance of health records and provisions of the proper use of appropriate health information by other school personnel.

School social workers are a specialized form of pupil personnel service for focusing on pupils with problems of a social-emotional nature or origin which interfere with their normal progress in school. One of the school social worker's unique contributions is his skill in the use of the social case work method. Another of his unique contributions is his extensive knowledge in the various social institutions and agencies. He will contribute to the study and adjustment of pupil problems through facility in the use of school and community resources, through an understanding of human growth and behavior, and an ability to share his professional competencies with others in a school. The functions of the school social work service will include:

1. Case work service with the individual pupil toward the correction of certain personal, social, or emotional maladjustments;

2. Case work services with parents as an integral part of the task of helping the pupil to increase parents understanding, their constructive participation and the use of appropriate resources;

3. Case consultation and collaboration with other school personnel--

to gather and give information on a case, and to establish and plan for the respective roles in the modifications of the pupil's behavior;

4. Cooperative action with the person in charge of pupil personnel services in referring pupils, cooperation of parents, contact with the community's social agencies, coordination of school social work services with the work of these agencies, and cooperation with such agencies in determining needs for and developing additional case work resources.

The primary objective of the attendance services will be to insure regular attendance of all school age children. A second concern will be to see that all school age children who are unable to participate in the regular school program because of mental, physical, or emotional handicaps are properly exempted and participate in educational programs appropriate to their needs. Attendance personnel at local levels will be qualified to perform professional services which will include:

1. Leadership in a program to promote positive pupil and parent attitudes toward regular school attendance;
2. Assistance to teachers in the early identification of patterns of non-attendance indicative of inadequate pupil adjustment;
3. Early professional action on problems of non-attendance, involving a caseworker approach to the pupils problems, parent contacts, cooperation with teachers, other pupil personnel workers and appropriate community agencies;
4. Supervision of the school's program of child-accounting, including the school census, issuance of employment certificates, and registers of attendance;
5. Constructive use of authority pertaining to the enforcement of the school attendance laws of the State.

## EARLY SCHOOL YEARS

### Present Practices - Occupational Guidance

In elementary school, guidance programs emphasize the early identification of the student's intellectual, emotional, social, and physical characteristics, the development of his talents, the determination and diagnosis of problems, and the use of community resources to meet student needs. The school program in these years is designed to develop the student's basic learning and communications skills through the acquisition of fundamental learning techniques. There are eleven elementary school guidance programs in Nevada which seek to develop techniques for inculcating a realistic system of internal and external self-controls which meet the needs of the individual. Recognizing that the child's concept of the world of work and the role he will play therein is at the fantasy stage of development, in part serves to explain why the occupational orientation portion of the total guidance program at this level generally is minimal and usually based on very limited first hand experience concerning the outer world of work beyond home and school.

### Emerging Mandates - Occupational Guidance

I. **THE EARLY SCHOOL CHILD'S EXPERIENCES SHOULD GIVE HIM A MORE REALISTIC PICTURE OF THE WORLD OF WORK, BY EXPERIENTIAL ACTIVITIES SUCH AS FIELD TRIPS TO SEE WHAT PEOPLE DO, WHAT THEIR WORK IS, AND HOW THEY EARN A LIVING.**

At this stage of development, a child's main task is to develop self-control, both internal and external. His self-concept is still in the early formative stages, together with his awareness of his role among his peers. His concept of the world of work and the role he will play in it is in the fantasy stage of development.

II. **THE SCHOOL PROGRAM IN THESE YEARS SHOULD BE DESIGNED TO DEVELOP THE CHILD'S BASIC LEARNING AND COMMUNICATIONS SKILLS AND HIS FUNDAMENTAL LEARNING BEHAVIORS AND TECHNIQUES.**

This is a cooperative process involving teachers, counselors, and parents, and it is fundamental to the child's intellectual growth and development.

III. **AN ADEQUATE SYSTEM OF ORIENTATION TO THE WORLD OF WORK MUST BEGIN AT THE ELEMENTARY SCHOOL LEVEL AND CONTINUE THROUGHOUT ADULT LIFE, SINCE OCCUPATIONAL EDUCATION IS A LIFELONG PROCESS.**

The mandate that occupational awareness or orientation strategy should commence at the elementary school level is supported by the reports of recent studies which focus upon learning behavior. Research reports indicate that the optimum opportunity for developing occupational interests and attitudes begins at this age.

# EARLY SCHOOL YEARS

## Recommended Exemplars - Occupational Guidance

### MODEL

OBJECTIVES: Early school occupational guidance services will assess and report student characteristics and abilities. Utilization of early development of the student's view of the world of work will be coordinated with academic and occupational instructional materials.

CONTENT: Occupational guidance services will detect and report student characteristics and abilities. The service will provide information regarding the student's academic and occupational orientation and assist in selecting and providing instructional design to meet the student's individual needs.

METHODOLOGY: Profile testing techniques will be utilized. A profile sheet is derived from the results of several tests selected from among appropriate tests such as: Pre-School Inventory, Maturity Level for School Entrance and Reading Readiness, Vineland Social Maturity Scale, Peabody Picture Vocabulary Test, Pre-School Attainment Record, Cooperative Primary Tests, Metropolitan Achievement Tests (Primary One and/or Primary Two Battery), Iowa Test of Basic Skills (Appropriate Grade Level), Stanford-Binet Intelligence Scale (Form L-H), the Wechsler Intelligence Scale for Children (WISC), Bender Visual Motor Gestalt Test for Children. Also, individual questionnaire devices pertinent to a particular school population situated in a geographic locality can be of some assistance.

Profile sheet evaluation and consultation with the student, parents, and teachers can provide the key to a reading program, for example; to be regarded as part of the language arts curriculum. Such a reading program would be designed by and for the individual student with the intent of yielding a variety of specific occupational information. Follow-up experiences which provide first-hand exposure, such as field trips, are additional vehicles for coordinating occupational exploration with academic endeavor. They are designed to move with the student from the fantasy toward the reality stages of viewing the world of work.

## MIDDLE SCHOOL YEARS

### An Introduction

The middle school years in the educational program may include grades four or five through grades seven or nine, depending on school district organization and curricular design. The Department of Education assumes the necessity of such flexibility in order that school districts may select the sequences that are most effective locally. Regardless of organizational patterns, the curricular aim of the middle years is to provide a program of sufficient breadth to include the aspects of general education. If the pre-school and early school years have curricular responsibility for developing communicating skills as a basis for student self-identity, then the middle years curriculum must develop the broad educational prerequisites for a period of increased specialization during the prevocational years.

The middle years must extend, develop, and refine sequences of concepts and skills introduced and developed in the early school years as well as provide articulation within the total K-12 program. There must be continued concern for the individualization of instruction, for the effective use of media, for flexibility in program, and for development of new modes of relevant subject matter presentation.

Many of the programs and sequences described in considerable detail as part of the program for the early school years continue with little change of direction into the middle school years. It is particularly important, however, that these programs be developed sequentially during these years to avoid needless repetition. The middle school years likewise sees the introduction of exploratory materials and an increasing divergence of individual student interests and aims.

The program during the middle years must reflect the need for diversity and flexibility. The program must be designed to develop fundamental skills in reading, writing, mathematical computation, and reasoning while at the same time allowing for the inclusion of broad areas designed for cultural enrichment and for heightened occupational awareness. The needs of the growing child during these years are extraordinarily complex, and the educational program must be designed to meet these needs.

## MIDDLE SCHOOL YEARS

### Present Practices - Reading

The reading program in the middle years continues specific instruction in fundamental reading skills sequential to and more sophisticated than those pursued during the early school years. There is some discernible tendency during the middle school years, however, to discontinue specific instruction in reading for those who have acquired sufficient skill to read at or near grade level. Thus, while those students whose lack of reading skill constitutes a definite academic hazard are provided with remedial instruction, other students are allowed to improve their reading skill in a relatively hit-or-miss fashion simply by being required to read. Actual practice in this respect varies so widely that it defies meaningful generalization.

It is during the middle years, as we have indicated, that we encounter the remedial reading program. The remedial reading program is designed to salvage the failures of the developmental reading program. Remedial programs are and will probably continue to be necessary, but their reason for being stands as a reproach, and the programs themselves are living monuments to failure. This implies no derrogation of all remedial programs, for some of them have been most effective, but it is intended rather as a reminder of what their existence implies about the developmental sequences.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Reading

**I. THE DEVELOPMENT OF READING BEYOND THE EARLY YEARS MUST BE AN ONGOING PROGRAM.**

Reading is far more than a mechanical skill, and its usefulness to the individual is measured rather in terms of the importance of the quality of his reading than in terms of his personal and professional life. Reading is obviously not a task for the primary grades nor for the elementary school alone. Yet the foundation for reading is laid here, and in the elementary and intermediate grades the student should cultivate wholesome attitudes toward reading, an enthusiasm for literature, an ability to read critically, and an understanding of the implication of reading for them.

**II. THE STUDENT MUST REFINE AND DEVELOP HIS SKILL AND COMPREHENSION AND MUST ADD TO THIS THE ABILITY TO RETAIN WHAT HE READS.**

He must develop the ability to evaluate what he reads both intellectually and aesthetically, to increase his sensitivity to the implications of what he reads and to organize and synthesize materials logically and perceptively.

**III. THE STUDENT SHOULD DEVELOP RELATED STUDY SKILLS.**

He should use the dictionary, the encyclopedia, and other reference materials independently. He should develop the ability to read with concentration, to select information that bears upon a given subject, to skim, to assess the accuracy and pertinence of statements that he has to read, to develop sensitivity for implied meanings, and to organize materials for retention and subsequent presentation.

IV. **THE PROGRAM MUST HELP THE STUDENT DEVELOP A VARIETY OF SILENT READING RATES, AND TO KNOW THE SITUATIONS IN WHICH EACH MAY BE APPROPRIATELY USED.**

He must recognize the difference between intensive reading and skimming and be able to do each skillfully. The reading program can best provide opportunities for the students to develop these varied skills by specific work in subjects where they will be used. Specific reading and comprehension exercise in social studies, science, mathematics, and other areas should be considered as and treated as integral parts of the total reading program.

V. **THE STUDENT MUST BE KEPT SUPPLIED WITH AN ENDLESS VARIETY OF READING MATERIALS AT AN APPROPRIATE LEVEL.**

He should be encouraged to read fiction, poetry, drama, essays, and articles, both during class time and on his own.

VI. **THE REMEDIAL PROGRAM MUST BE ADMINISTERED BY THOROUGHLY TRAINED AND DEDICATED TEACHERS AND MUST MAKE USE OF A VARIETY OF MATERIALS.**

Those programs which merely repeat the ineffective tactics which caused initial failure are of themselves doomed to more failure. Those programs which include psychological and physiological diagnosis and a high degree of individualized remediation stand the greatest chance of success.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Reading

### MODEL I: The Developmental Program

OBJECTIVES: The student in the middle school years should be led to cultivate wholesome attitudes toward reading, an enthusiasm for literature, the ability to read critically, and a deepening understanding of the importance of reading to him both at the present time and in the future.

CONTENT: The reading program must reach beyond pure "reading" material into such related fields as social studies, science, mathematics, and the arts for material with which to provide the student with a variety of reading experiences. This variety of content material must be used to increase the student's skill, comprehension, and evaluative powers.

The student must be provided, likewise, with a wide range of high interest material in many fields. Sports stories, horse stories, and science fiction stories are especially appealing to students during this time. It is important that the student keep reading and that much of this reading be motivated by the inherent interest of what he reads. Lists of suggested readings should be developed in cooperation with the librarian, but these lists should be indicative rather than narrowly prescriptive.

METHODOLOGY: The reading program at this level should be as individualized as possible to meet the students' varied reading skills. The program should likewise be administered in as flexible a manner as possible. It is important that time for reading and for instruction in reading be allotted specifically during these years. While the program bears a close relationship to the literature strand of the English program, it should remain wherever possible a separate entity. The continued skill emphasis in the middle school reading program makes this separation especially desirable. The developmental program should aim at general encouragement and at individual skill improvement.

### MODEL II: A Remedial Program

OBJECTIVES: The objective of any remedial reading program is to diagnose and to cure deficiencies.

CONTENT: The process of diagnosis is fundamental to a remedial reading program. A student who is having a problem with reading should be tested for basic perceptual capabilities and intelligence, and should be individually interviewed in depth by a qualified remedial reading teacher. The content of the program the individual student is to follow should be prescribed on the basis of this or other diagnostic procedures.

It is important to recognize that no one body of material designed for remediation will work with all students at all times. The remedial program, consequently, should offer a variety of approaches to reading including reading laboratories, individually prescribed instruction, programmed material, multimedia programs, or a combination of several of these. It will, of course, be useless to continue with the material and the techniques which have, in the past, contributed to the failure of the individual student. The student needs, in his remedial program, new approaches that hold for him some hope of success.

METHODOLOGY: While the method of presenting material will vary widely with the content and form of that material, the remedial program must be keyed to success. If the remedial program can break the pattern of failure even in small areas, it will have introduced a positive element. The remedial reading teacher must be flexible in her methodology and must have attained the mastery over a variety of materials and approaches.

## MIDDLE SCHOOL YEARS

### Present Practices - English

In Nevada, at present, the middle years represent largely a continuation of the English program described in the early school years. The "grammar" most commonly taught is traditional with frequent confusion between grammar--the study of language--and usage, which is concerned with patterns of social behavior. During the middle years, the tendency for the rule-centered program to become highly repetitive is clearly apparent.

The composition program at present varies widely with the interest and ability of the individual teacher. There seems to be, in general, a major stress on the mechanics, on punctuation, and on spelling. In general, there is very little use made in the composition program of modern rhetorical theories.

Perhaps in reading, for those already skilled, present practices are stronger than in many other areas. The programs for the slow reader, however, leave much to be desired. The well-worn, and often outdated, anthology featuring a severely cut version of a Shakespearean play is all too often the base from which the program works.

The oral part of the program tends to be recessive. In a departmentalized situation, there may be a special speech course offered, but in most of the traditional classrooms the student simply does not have sufficient opportunity for oral expression. Instead, during these years, he begins increasingly to be afflicted with a lecture which involves little or no commitment or involvement on his part.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - English

The mandates through the middle years are a logical extension of those already cited for the early school years.

I. **THERE MUST BE A CONTINUED FOCUS ON LANGUAGE AND ITS USES AS THE CENTRAL AND ORDERING FACTOR IN THE PROGRAM.**

This work should continue to reinforce the understanding of the phonemic (sound) and graphemic (writing) systems of the language, to extend the study of etymology and of the dictionary, and to expand the study of the history of the language. It should embody an understanding of the levels of usage and of the value of developing of fluency and competency in the use of standard English.

II. **THE READING PROGRAM MUST CONTINUE TO BROADEN ITS BASE, TO HEIGHTEN ITS INTEREST, AND TO PROVIDE INCREASINGLY CRITICAL INVOLVEMENT ON THE PART OF THE STUDENT.**

There must be continuing development of skill in all types of reading. It is important that programs offer a wide variety of reading experiences and that conscious effort be made to develop critical standards of taste and judgment. This should be reflected in increasing coordination between literature and composition.

III. THE GRAMMAR PROGRAM MUST CONTINUE ITS CONCERN WITH SENTENCE PATTERNS AND WITH THE EXPANSION AND MANIPULATION OF THOSE PATTERNS.

This program, however, should not occupy a disproportionate amount of time. In the middle years, much of the time and effort traditionally given to drill in syntax and usage would be far better used in composition, both oral and written.

IV. INCREASING EMPHASIS MUST BE GIVEN TO ORAL AND WRITTEN COMPOSITION.

The program should incorporate the principles of modern sentence and paragraph rhetoric but without undue emphasis on conscious rhetorical devices. It should also include practice in the expansion and combination of sentences and in the reinforcement of basic skills, punctuation, and capitalization. Special opportunity for oral expression should be a planned part of the structured program, and should involve both informal response and the presentation of prepared topics.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - English

### MODEL

OBJECTIVES: The English program must continue to provide instruction in language, oral and written composition, and literature. These activities aim respectively at a refinement of the understanding of the way language works, the development of communication skills, and a broadening and deepening of experience with literature.

CONTENT: The several strands of the program discernible through the early school years continue as sequential content areas during the middle school years. Continued attention to language with particular content emphasis on its history, its etymology, and its grammar should build on previous sequences. The program should continue its emphasis on composition including beginning considerations of the structure and shape of sentences and paragraphs. Presentation of informal oral discussions, impromptu talks, and prepared oral reports should be an important part of the composition program.

The reading program in the middle school years must provide specific instruction on the continuing developmental reading skills as well as an opportunity for extensive reading of appropriate prose, poetry, and drama. The literacy content should be designed to heighten the student's interest in reading to provide increasingly critical involvement in response to what he reads. At this level, the coordination of the literature and composition program is particularly desirable.

METHODOLOGY: Methods should be devised that stimulate a maximum of student involvement in all classroom activities. The language activities are particularly adaptable to individual inquiry, and the composition and literature programs can be highly individualized. There should be a minimum of teacher-dominated lecture activity and a maximum of vital individual participation and response. Teachers should make extensive use of available media and should make recordings, filmstrips, slides, and other audiovisual aids available to students individually or in small groups. Programs should come above all, to be administered so flexibly that they meet the needs of all students regardless of ability.

## MIDDLE SCHOOL YEARS

### Present Practices - Mathematics

Instruction in Mathematics is offered to all middle year students each day for approximately one hour. The emphasis at this level is on the positive rational numbers (fractions), which is a difficult area for many students. This difficulty is often caused by present practices in which students are moved through new content before they have attained a sufficiently high degree of proficiency in the mathematical prerequisites taught during the early school years.

For the most part, schools in Nevada have adopted modern material on this level and have accepted the broader goals of contemporary mathematics.

Some deparmentalization is taking place within the State, but for the most part instruction is presented to heterogeneous groups by the general classroom teacher in a self-contained situation.

Many Nevada teachers have had in-service training, have taken college courses, or have participated in NSF Institutes to keep up with recent subject matter and methodological changes. Despite this, many teachers of mathematics in the middle years, perhaps because they must also keep abreast of developments in other disciplines, have found it impossible to keep pace with modern mathematics.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Mathematics

Mandates for the middle years parallel closely those of the early school years. This implies a continuity both of the programs and the problems. In general, the broad concepts introduced in the primary grades must be expanded to a higher level of understanding during these years. Specifically, the following mandates indicate special needs in the middle years.

I. **THERE MUST BE CONTINUED INDIVIDUALIZATION IN THE MATHEMATICS PROGRAM.**

The mere fact that a student is assigned to a fourth grade home room cannot be considered adequate justification for his being taught what are traditionally considered to be fourth grade mathematical topics. Some type of nongradeness must be planned and based upon a curricular continuum.

II. **THERE MUST BE A STRONG EFFORT TO INCORPORATE IMPROVEMENT IN COURSE CONTENT ON A CONTINUING BASIS AS BETTER MATERIAL BECOMES AVAILABLE.**

The adoption of a contemporary textbook series does not end the problem of improving course content. Some series contain only shallow differences between traditional and contemporary mathematics; some contain unproven approaches; and few lend themselves readily to a discovery approach to learning.

142/143

### III. TEACHER TRAINING AND RETRAINING MUST CONTINUE TO REFLECT CONTEMPORARY CONTENT AND METHODS.

Those teachers to whom contemporary content and method are still new need training, and as content and method continue to change, teachers will continue to need retraining.

### IV. MATHEMATICS MUST DEVELOP A CLOSER RELATIONSHIP WITH OTHER AREAS, ESPECIALLY WITH SCIENCE.

A major purpose of mathematics education is not accomplished unless that learning relates to broader areas.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Mathematics

### MODEL

OBJECTIVES: As students reach the middle school years, differences in attitude and proficiency begin to show, so that for some students the middle school years mathematics program should continue the objectives of the early school years.

The main objective of the middle school years in mathematics is the development of understanding and skill in operations on the whole and positive rational numbers (fractions, continued development of basic number and operations concepts, and the application of mathematics) to the solution of problems in other areas of the curriculum. Mathematics has the responsibility of helping to develop the broad curricular objectives of problem solving.

CONTENT: The curriculum content for the mathematics program in the middle years can be categorized in the same six strands as the early school years, namely: Number, Numeration, Operations, Geometry, Measurement, and Problem Solving. At this level, Number, Numeration, and Operations deal with both the whole numbers and the positive rational numbers. Geometry becomes a study of the properties of geometric figures and of the relationships between them. Measurement concepts are applied to the development of useful skills. Problem solving techniques are developed at this level.

The Nevada Elementary Course of Study as revised in 1964, is considered to be an up-to-date statement of the mathematical content for the early school years and is recommended as a model upon which a school program can be based. The Clark County Mathematics Curricular Guide K-6 (1967) which was developed with the assistance of the State Department of Education, represents an extension of the state course of study. This curricular guide which states objectives in terms of student behavior is the only one of its kind and is highly recommended as a content model.

Another useful model is the curriculum matrix developed by the IPI Project in Pennsylvania. The methods statement here repeats that of the early school years for the present.

## MIDDLE SCHOOL YEARS

### Present Practices - Science

Teaching practices in the middle years are very much like those of the early school years, except that the teachers tend to move away from the reading about science to fact memorization or toward a didactic approach to science. There is also available, as during the preceding years, very little science material or equipment. Here again, the teacher frequently finds himself in the position of teaching a subject in the elementary program for which he has very limited inadequate background. In such a sitution, the program tends to be slighted in favor of areas in which the teacher feels more secure.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Science

**I. EFFORTS MUST BE MADE TO PREPARE TEACHERS MORE ADEQUATELY FOR THEIR CONTEMPORARY ROLE IN SCIENCE EDUCATION.**

The lack of training in content, methods, and teaching techniques is one of the main obstacles in the way of improving science teaching. This is especially true with teachers in the kindergarten through the sixth grade. This situation can probably be remedied best through the development of in-service programs geared to the needs of the teachers. Such programs should be initiated, coordinated, and carried on jointly through the efforts of the State Department of Education, the university, the local education administrative staff, and the teachers themselves.

**II. PROGRESSIVE STEPS MUST BE TAKEN TO RELEASE TEACHERS FROM SOME OF THEIR CLASS RESPONSIBILITY FOR IN-SERVICE TRAINING.**

It is not reasonable to expect a teacher to assume responsibility for curricular work in bits and pieces while carrying on a regular teaching load. Curriculum work, if properly done by the teacher, is demanding in both time and energy.

**III. THE CURRICULUM FOR GRADES FOUR THROUGH SIX MUST BE DESIGNED TO MEET THE NEEDS OF ALL STUDENTS.**

Those especially interested in science and those whose interests lie elsewhere, the below average, the average, and the above average in ability each need programs differing in emphasis and complexities. Because our society is dynamic, the needs of children and the content of science are constantly changing. Thus, the science curriculum must be evolving continually both in content and methodology.

**IV. THE CURRICULUM DESIGN FOR THE MIDDLE YEARS AND THE PREVOCATIONAL YEARS PROGRAMS MUST BE SO ARTICULATED THAT THE FORMER SCIENCE PROGRAM PROVIDES A BASE FOR SUBSEQUENT SCIENCE EXPERIENCE.**

In planning a kindergarten through fourteenth year science continuum, those designing the program must keep in mind the previous and subsequent science experiences of pupils at every given level.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Science

MODEL

OBJECTIVES: The science program in the middle school years should attempt to cultivate an understanding of and an interest in scientific inquiry. It should aim to equip the student with the means of informing himself through elementary research procedures and the use of logical reasoning rather than supplying him with scientific facts which may well be outdated in the decade.

CONTENT: The content of the science curriculum for the middle years should be in a state of constant flux. The rapid changes in subject matter reflect the explosive expansion of science in the general period. The program should expand those aspects of environmental understandings which were begun during the early school years. Wherever possible, the content should capitalize on the existing areas of interest and expand the understanding of these through guided inquiry.

METHODOLOGY: The methods by which the materials are presented should allow for a maximum of active student involvement. Opportunity for individual manipulative work should be developed to the utmost. The spirit of inquiry should be cultivated by the extension of individual project opportunities aimed at the development of sound procedural skills rather than at the acquisition of factual information. Elementary laboratory experience and carefully planned field trips should be an integral part of the entire program. In this way the procedural skills lead logically to meaningful fact in valid context.

## MIDDLE SCHOOL YEARS

### Present Practices - Social Studies

Social studies instruction in the middle years often lacks appeal to the pupils and to the teachers alike because the mode of presentation is usually too formal and the content is largely descriptive. Too little attention is presently given to student involvement.

Geography and history receive the concentration with emphasis upon our American Heritage, while Europe and Asia are usually treated as areas of added interest. The heavy emphasis upon history and geography in the social studies program creates a program which lacks analytical significance. Basically, the analytical disciplines in the social sciences are economics, political science, and sociology, while history and geography tend to be integrative. The analytical disciplines, unfortunately, have received inadequate attention.

In the middle years, as in the early school years, the curriculum has tended to stress mathematics, language arts, science, and foreign languages at the expense of social studies.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Social Studies

I. **CONSIDERATION SHOULD BE GIVEN TO THE CONTINUED DEVELOPMENT OF PREVIOUSLY INTRODUCED INQUIRY SKILLS AND TO THE INTRODUCTION OF APPROPRIATE NEW SKILLS AS THE STUDENTS MOVE THROUGH THE MIDDLE YEARS LEARNING EXPERIENCES.**

Activities should be developed that require students to select and refine a purpose, hypothesize, test hypothese, draw conclusions, apply these conclusions, and generalize on the basis of the entire experience.

II. **GREATER EMPHASIS SHOULD BE PLACED UPON INVOLVING STUDENTS DIRECTLY AND ACTIVELY IN SITUATIONS MARKED BY CONCEPT DEVELOPMENT, THE USE OF QUESTIONS TO ANALYZE MATERIALS, AND THE FORMULATION AND TESTING OF HYPOTHESES IN GENERALIZATIONS.**

The problem approach in self-directed learning holds much potential for the discovery and inquiry method in social studies instruction. This approach stresses the student's active participation in discovering or uncovering the underlying principles and structure of the materials under study. Student-selected projects, independent study, group work, student research, class discussions, field trips, and laboratory work are examples of activities that differ from the conventional image of the teacher-oriented classroom.

III. **TEACHING STRATEGY SHOULD FACILITATE UNDERSTANDING RATHER THAN MEMORIZATION.**

A series of isolated facts without some kind of conceptual framework to hold them together means very little in guiding behavior. Content must be chosen that will build toward an understanding of key ideas or key concepts.

IV. DURING THE MIDDLE YEARS, STUDY OF SPECIFIC SOCIO-CULTURAL AREAS, DRAWING IN ALL DISCIPLINES, SHOULD BE THE VEHICLE FOR STUDY OF NON-WESTERN AS WELL AS WESTERN CULTURE.

Emphasis should be on a global approach that will also employ a cultural approach to foster an understanding of the peoples of the world, for it is a people's culture that determines their behavior.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Social Studies

### MODEL I: The California Program

OBJECTIVES: The objective in social studies programs is to show children that there is a mode of thinking about society that is both different from and as legitimate as traditional modes and to give them experience in it.

CONTENT: The content during the middle years may be widely varied, but should emphasize such disciplines as economics, political science, and sociology. These aspects of the social science must lend themselves to the strengthening of inquiry skills, to the development of social concepts, and to the advance of broad social understandings.

METHODOLOGY: The modes and methods of presenting social studies material during the middle years must be consistent to the development of analytic skills. The program must, moreover, be designed to facilitate the student's formulation of meaningful socio-economic concepts. This requires an emphasis on understanding rather than on memorization, upon the critical significances rather than on facts, and on the formation of intellectual processes that will enable the student to continue his own critical evaluation of the society in which he lives.

### MODEL II: The Wisconsin Program

OBJECTIVES: The Wisconsin social studies program in the middle years aims consistently at the further development of concepts and skills introduced in the early school years.

CONTENT: The middle school years social studies program in Wisconsin expands in sophistication and in content both areas discussed in the early school years. For example, concept relationships such as those among the division of labor, specialization, and interdependence are stressed. In considering these relationships the students are given the opportunity to use social science concepts as analytical tools.

In like manner, inquiry skills such as the interpretation of data and the formulation of questions and hypotheses are added to the skills which were developed in the early school years, and which are continued through the middle years. Such interpretation and formulation requires a highly sophisticated application of basic inquiry skills as well as the acquisition of new skills.

The content areas are related to those of the early school years in that stress is placed upon human action within the expanding world--from America and its growth (with a focus upon the student's native state) to an investigation of world regions and changing cultures. In consonance with this, there is an attitudinal focus upon the student's identification with his community, state, and nation. Indicative of the scope of the sequence is the following breakdown by grade levels:

Grade Four - The Native State
Grade Five - Our Nation and its Growth
Grade Six - Selected Cultures (food gathering, agrarian, handicrafts, and industrial complexes)

Grade Seven - Introduction to the Social Studies
Grade Eight - Area Studies (The Western World)

METHODOLOGY: The development of inquiry skills and the exploration of sophisticated concepts and their relationships requires a maximum of student participation. The student must be intimately involved in the correlation of the complex materials and with the sequential development of related concepts. There should be increasing opportunity for individual student exploratory study and the formulation of meaningful student question sequences.

It is clear that no single method will be effective and in the development of all aspects of such a sequence of courses. Rather, methods used should be selective and infinitely flexible. There is a place for the occasional informative lecture, although excessive use of this devise is relatively unprofitable. Alternate procedures such as problem solving, inquiry, and project development may be especially useful.

## MIDDLE SCHOOL YEARS

### Present Practices - Foreign Language

At the present time, of 156 elementary schools in the State, approximately 20 are offering a foreign language program. Of the 23 junior high schools in the State, 21 are offering foreign language programs. The middle years will be treated here more specifically as concerns the junior high school or ages 11 through 14. Most of the junior high schools in the State of Nevada offer a foreign language. All of the junior high schools offering foreign languages teach Spanish; seventeen teach French, eight teach German, and one teaches Latin. All of the junior high schools in Washoe County School District teach all three languages beginning in grade seven.

In materials used, the present programs follow the latest emphasis in foreign language instruction; however, the majority of junior high school teachers have not been adequately trained in the use of the new materials and consequently the texts and materials are not used to best advantage in the junior high school foreign language classroom. This reflects the failure of teacher training institutions to develop programs designed to prepare teachers in the latest techniques and methods. Foreign language programs also often lack local district support.

In 1963, the secondary course of study for foreign language instruction was adopted and published by the State Department of Education. This document philosophically and objectively represents the latest thinking in the field of foreign language instruction. However, most teachers in the middle school years do not demonstrate or implement well the objectives and philosophy of this course of study.

At present, articulation is lacking between elementary programs and junior high school programs. Students who have had elementary foreign language instruction in the majority of cases are placed in beginning classes at the junior high school level, rather than in advanced classes to take advantage of the instruction which they have already received.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Foreign Language

I. **STRONG FOREIGN LANGUAGE PROGRAMS SHOULD BE DEVELOPED IN GRADES SEVEN THROUGH TWELVE, WHERE IT IS NOT POSSIBLE TO HAVE CONTINUAL PROGRAMS BEGINNING IN THE EARLY SCHOOL YEARS.**

In other words, when a choice must be made between an early school program and a middle school program, the middle years program (7-12) is the preferred starting point.

II. **STUDENTS WHO HAVE HAD WELL-PLANNED INSTRUCTION IN THE EARLY SCHOOL YEARS SHOULD HAVE THE ADVANTAGE OF A PROGRAM IN THE JUNIOR HIGH SCHOOL DESIGNED TO TAKE ADVANTAGE OF THEIR PREVIOUS TRAINING.**

They should be placed in classes advanced enough to carry on their training and not in beginning classes where they will lose interest and momentum. To do otherwise destroys much of the purpose of the elementary program.

### III. FOREIGN LANGUAGE PROGRAMS IN THE JUNIOR HIGH SCHOOL MUST BE WELL-ARTICULATED WITH HIGH SCHOOL PROGRAMS.

For example, if Spanish is offered in the junior high school program, provision must be made to offer it in the high school. The mode of instruction and the material of instruction must also be consistent and sequential.

### IV. FOREIGN LANGUAGE PROGRAMS FOR THE MIDDLE YEARS MUST BE TAUGHT BY WELL-QUALIFIED TEACHERS.

Concern has been expressed nationally and in Nevada that teachers at this level are often given assignments to teach foreign language without having proper preparation. Such preparation must be available and then made mandatory.

### V. EVERY JUNIOR HIGH SCHOOL IN NEVADA SHOULD PROVIDE OPPORTUNITY FOR STUDENTS TO STUDY AT LEAST ONE FOREIGN LANGUAGE.

Large junior high schools should offer at least two languages, in a well-planned and articulated sequence. These programs should be offered on an elective basis to all students who desire to participate. Smaller junior high schools should offer a sequence in the language most appropriate to local needs and interests.

## MIDDLE SCHOOL YEARS

### Recommended Exemplars - Foreign Language

### MODEL

OBJECTIVES: Programs in the middle school years will be designed to take advantage of student's previous training, to provide articulation with the prevocational program, and to utilize a fundamental skill approach.

CONTENT: Fundamental skills in language will be the emphasis of the program. Students who began a language at an earlier level will be afforded the opportunity to continue the same language. Enrichment opportunities will be an important feature of the middle years program.

METHODOLOGY: Foreign language programs at this level should provide for daily instruction of at least twenty minutes in length. Teachers should be prepared in techniques and methodology as well as in the fundamental skills of the language. Provision should be made, if necessary, for students coming in from elementary foreign language programs into intermediate or advanced levels at the junior high school. Material should be consistent with the fundamental skills method. Provision must be made for articulation into high school programs. Language study should be offered to all students beginning in the seventh grade on an elective basis. Equipment such as tape recorders, phonograph players, and the soft ware to accompany them should be available to every foreign language teacher. Provision should be made for enrichment opportunities or programs, such as language camps, foreign travel, language festivals, and other enrichment programs such as dancing, singing, films, plays.

## MIDDLE SCHOOL YEARS

### Present Practices - Physical Education

Most school districts in the State of Nevada, with the exception of a few schools in the larger counties, have little to offer in way of sequential physical education programs with emphasis on skills for leisure time activities, or on social development or emotional stability. Physical education is not a part of the total educational program, but rather an activities addendum.

In general, during these years, students are taken out to play organized games such as softball, touch football, soccer, and others, with no formal instruction on the development of particular skills which are required when participating; hence, those children who have already developed these skills will progress, while those who have not will regress. In general, when junior high schools or intermediate schools are separate, these schools have physical educational programs.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Physical Education

I. **THERE MUST BE A FOLLOW-UP FROM THE EARLY YEARS' PROGRAMS WHICH MEETS THE NEEDS OF THIS AGE GROUP IN A MEANINGFUL SEQUENCE.**

Realistically, there may be no early program to follow so that, in effect, the middle years program may be introductory. Continued concern for physical well-being and for the socio-psychological aspects of the program provides a value base.

II. **PROGRAMS MUST BE DEVELOPED WHICH FOCUS ON THE FOLLOWING IMPORTANT OBJECTIVES: (1) TO BUILD MUSCULAR AND CARDIAC ENDURANCE, (2) TO DEVELOP FLEXIBILITY, (3) TO CONTINUE TO WORK ON THE COORDINATION AND BALANCE OF THE INDIVIDUAL, (4) TO TEACH RELAXATION WHICH BRIEFLY DEFINES THE ABILITY TO DECREASE MUSCULAR TENSION, (5) TO BUILD SOCIAL DEVELOPMENT AND EMOTIONAL STABILITY.**

These objectives may be attained by a number of varied approaches. While no one way can guarantee success, the objectives themselves constitute the goals by which the effectiveness of any program may be measured.

III. **CONSIDERATION MUST BE GIVEN OF THE CHILD's TOTAL NEEDS DURING THE MIDDLE YEARS.**

The trend nationwide is to treat physical education as a part of the total educational program, and the development of proper attitudes at this level will enhance programs during later years.

IV. **THE DEVELOPMENT OF WORTHY LEISURE TIME ACTIVITIES SHOULD RECEIVE PARTICULAR EMPHASIS DURING THIS PERIOD.**

The growth of leisure time places a high priority on the development of interest and skills that will enable the individual to make good use of this time to improve his health and general well-being.

V. EMPLOYING A SPECIALIST IN THIS LEVEL, LIKE THOSE EMPLOYED IN MUSIC AND ART PROGRAMS, SEEMS THE ONLY LOGICAL APPROACH TO ACCOMPLISH THE BROAD OBJECTIVES OF PHYSICAL EDUCATION IT IS CONCEIVABLE THAT THESE OBJECTIVES MIGHT BE REACHED BY THE REGULAR CLASSROOM TEACHER WITH PROPER IN-SERVICE TRAINING.

The specialist brings to the program the requisite background in psychology, body mechanics, kinesiology, related health areas, skills, and recreation. The acquisition of this background requires specialized study, personal aptitude, and interest comparable to that in any field of specialization.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Physical Education

### MODEL

OBJECTIVES: The physical education program during the middle school years should accomplish the transition of activities from lead-up games to athletic games. This change involves complexity of skills and playing rules and gradually increased opportunities for limited competition.

CONTENT: If students have been given the opportunity to learn and to practice the basic skills and the lead-up athletic skills, they can utilize these skills in volleyball, basketball, softball, flag football, soccer, handball, track and field, bowling, badminton, tennis, swimming, tumbling, table tennis, skiing, folk and square dancing, gymnastics, and other sports. These sports activities should include opportunities for learning behavior and responsibility in team play. The children should learn how to make and agree upon rules and should learn to settle differences of opinion and become accustomed to ways of getting along with peers without immediate supervision.

The ideal physical education program for the middle school years would schedule instruction and participation one period per day, five days each week for a minimum of 45 minutes, exclusive of recess and noontime activities.

Children in grades four through six should be taught by a qualified specialist in physical education. Although many classroom teachers are eager to provide the needed opportunity for the maximum physical development of their students, they very seldom have the ability to demonstrate a fullrange of skills or the strength and techniques for teaching specialized skills such as are required for tumbling and rhythmics.

A well-rounded physical education program at this level will include participation in the following broad categories of activities with these approximate time percentages:

| | | |
|---|---|---|
| I. | Low Organization Activities | 20 Percent |
| A. | Running and Tag Games | 5 |
| B. | Simple Circle Ball Games | 5 |
| C. | Simple Goal Ball Games | 5 |
| D. | Relays, Races, and Contests | 5 |
| II. | Athletic Skills and Games | 40 Percent |
| A. | Skills and Skill Drills | 10 |
| B. | Lead-up Games | 10 |
| C. | Athletic Team Games | 15 |
| D. | Individual and Dual Sports | 5 |
| III. | Rhythmic Activities | 20 Percent |
| A. | Folk Dance and Mixers | 10 |
| B. | Square Dance | 10 |

| | | |
|---|---|---|
| IV. | Apparatus, Tumbling, and Stunts | 15 Percent |
| V. | Body Mechanics and Fitness Activities | 5 Percent |

METHODOLOGY: During this transitional period, the methods as well as the nature of the program undergo considerable change. As the students progress, they should be given increased opportunities for self-supervision and for regulating the arbitration of their games. Supervised physical activity should be used as a means by which the child gains further insight into himself. He should learn why proper health habits are important and should realize the results of insufficient rest or improper diet. Also, because this is an age when abilities become more divergent between sexes and individuals, the program should be designed to increase understanding of and consideration for others.

Provision for satisfying the urge for competition should be carefully directed. Because young people of this age can begin to perform well, there exists a tendency for adults to arrange competition on the level which can damage the child's carefully developed concept of individual worth. Too many children become discouraged or disenchanted with sport participation because of "comparative failure" when they attempt unequal or high-pressure competition. Too many children do not make the team. No one should be excluded from participation at this age level, nor should the athletically-gifted be allowed to monopolize the more important positions. Opportunities for challenging these skilled and gifted children should be provided in an extracurricular program of intramurals and of limited interscholastic contests.

## MIDDLE SCHOOL YEARS

### Present Practices - Health Education

Health instruction in the middle years, as in the early years, is given by regular teachers in a self-contained classroom. The child's classroom teacher should offer this instruction; unfortunately many teachers in Nevada are ill-prepared to do so. Consequently, health education in the middle years remains unorganized and ineffectual. Programs are generally built on a concept of "clean body, clean teeth, healthy mind" alone. Nevada school children in the middle school years do not receive adequate factual information regarding smoking, drinking, and drugs. Issues in health education such as floridation and sex education are avoided, as a rule.

In the middle years teachers are drawing upon their own resources to develop family life units. Since many family life concepts are closely related to health, science, language arts, and social studies, this aspects of health education can readily be incorporated in the curricula. However, in Nevada it is a relatively undeveloped aspect of the middle years program.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Health Education

I. **HEALTH EDUCATION IN THE MIDDLE SCHOOL YEARS MUST RE-ENFORCE GOOD HEALTH PRACTICES AS DEVELOPED IN THE EARLY SCHOOL YEARS.**

This importance of personal cleanliness, sound health habits, diet, and sleep must be emphasized.

II. **THE OBJECTIVES OF HEALTH EDUCATION MUST BE CLEARLY DELINEATED IN THE CURRICULAR DOCUMENTS IN ALL AREAS OF THE STATE.**

The scope of learning in health education is as wide as life itself, therefore, specific social needs must be identified for each level in order to provide some depth rather than cursory coverage. Health education is a study of life and its processes and learning in this area has few limitations.

III. **STUDENTS IN THE MIDDLE SCHOOL YEARS SHOULD BE INTRODUCED TO A MORE SOPHISTICATED APPROACH TO SEX, SMOKING, AND DRUGS.**

Instruction should take cognizance of the exposure to these topics that children have from a wide variety of sources outside the school.

IV. **FAMILY LIFE EDUCATION MUST BE CONTINUED AND REFINED IN THE MIDDLE SCHOOL YEARS.**

In our rapidly changing culture, great stress is placed on the family. Strong positive forces are needed to counteract the negative forces in our society which work against family stability. Family life education can be that strong positive force; it can supplement education received in the home and the church.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Health Education

### MODEL

OBJECTIVES: The exemplary program for the middle years will involve continuation of good health practices. The concepts that "health is happiness" will be stressed at this level and students will be involved in the community and be aware of social, emotional, and physical problems.

CONTENT: The program at this level is designed to meet students' interests and needs. A student at this level begins to see and feel the need for personal as well as public health. The student develops a self-image and his body becomes important to him. The concepts that are taught earlier such as causes of colds, the use of drugs, the effects of smoking, the needs for vaccines, begin to make sense to the student. Comprehensive units on smoking, drug abuse, and sex education will be incorporated. Detailed information on the effects of improper diet in more technical terms will also be a part of the middle years program.

METHODOLOGY: It is imperative that students be grouped at this level and material prepared for their specific needs: For example, the instructor may have one group of students that is ready for information on sex education while another group is learning about the scientific information that is compiled in the earlier years. During the middle years, in order to meet the mandates of reinforcing good health practices, the use of speakers and visiting professionals is most helpful. Students must be taught health in a "living laboratory" and, therefore, it is essential that they move about the community and become involved in some social, emotional, and physical problems. Health teachers must not be tempted to give final and definite word on health problems. Teachers at this level should not, and must not, assume the role of physician.

## MIDDLE SCHOOL YEARS

### Present Practices - Music Education

Present practices in music education in Nevada during the middle school years are largely a continuation of the practices cited for the early school years. The approach in the middle years is essentially an "activities and performance" oriented approach. The exception to this occurs in the urban areas of the State where a larger number of music specialists handle teaching duties. Unfortunately, however, often this does not greatly affect the "basic program" of classroom music, which usually is still carried out by the teacher of the self-contained classroom. The middle years are traditionally those during which students may be provided the opportunities to begin participation in choral, band, and occasionally string programs. These programs are often weakened by an excessive emphasis on the public relations value of public performances.

Music educators in the middle school years are not adequately cognizant of innovations which have favorably affected other disciplines, such as flexible scheduling, non-gradedness, individual instruction, and team-teaching. It is still apparent in the middle years that many children in Nevada lack opportunities for significant instruction and learning in music.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Music Education

Among the emerging mandates for music education are two of considerable importance and dimension; these mandates are vital not only to music education during the middle school years, but to the entire spectrum of music education in the public schools.

I. **THE "ACTIVITIES AND PERFORMANCE" ORIENTED APPROACH MUST BE REPLACED BY AN APPROACH WHICH FOCUSES ON BASIC EXPERIENCES AND INVOLVEMENT WITH THE ESSENTIAL ELEMENTS OF MUSIC.**

This can be accomplished through a reorganization of the curriculum around concepts and subconcepts involving the commonly mentioned "elements" of music (i.e., melody, harmony, rhythm, tempo, form, dynamics, and tone color) as well as related ideas such as style and effective learnings. Such a curriculum reorganization would provide the necessary new direction in music education, and, in addition, it would parallel approaches used to restructure the curriculum in areas such as science and mathematics. This emphasis on the elements of music has received significant support in the professional literature. For example, John I. Goodlad, in Creative Approaches to School Music (1967), stated recently,

> "There is much work to be done in music education. There is the new math, the new physics, the new biology...all emphasizing the structure of the fields. Music education hasn't reached that point in enough schools. Children should be introduced to the structure of music through a carefully planned, sequential curriculum as rigorous and well-organized as the best math curriculum.

> "...Music specialists must be members of teaching teams in the school, providing the necessary instruction and relating their field to others in the curriculum. The program must not be choral, instrumental, or appreciative; it must be all three."

## II. THE FIELD OF MUSIC EDUCATION MUST TAKE COGNIZANCE OF THE INNOVATIONS OCCURRING IN OTHER PARTS OF THE CURRICULUM AS WELL AS IN SCHOOL ORGANIZATION AND ADMINISTRATION.

The implications for music instruction of ideas such as flexible scheduling, nongradedness, individualization of instruction, and team-teaching are considerable, particularly when coupled with rapidly growing contributions of technologically mediated instruction. According to the Tanglewood Symposium Report, in view of the changing musical audience, aesthetics, and goals, "One fact filters through clearly: No music teacher can be content with presenting a music lesson aimed 'down the middle'." Again, the recurring question of who can best perform the challenging task outlined above comes to the fore. In response, a Tanglewood writer states,

> "Pursuit of artistic quality at the elementary school level suggests that in-depth study of music requires the direction of music specialist. The old argument of self-contained classroom seems to crumble when confronted with the new artistic demands. Only a musician-teacher could hope to achieve the individualization of instruction, the improved curriculum, the upgrading course content, and the utilization of more effective teaching methods and materials that the times prescribe."

## MIDDLE SCHOOL YEARS

### Recommended Exemplars - Music Education

### MODEL I: General Music Program

OBJECTIVES: A model program in music education will provide general music instruction for all children and advanced instruction and performance opportunities for the gifted.

CONTENT: A sound music education course for the middle years would be concept-centered around such considerations as the basic elements of music, style, form, and the like. While an ideal program would not decrease the present performance opportunities for the gifted, it would expand or institute programs in general music education for all students.

METHODOLOGY: The broadening of the base of the music program will place vastly greater methodological demands on the music educator. The program of instruction should provide for a maximum of individualization, and should in general make use of this and other innovations in instructional patterns and modes of subject matter presentation.

### MODEL II: A Choral Program

OBJECTIVES: The objectives of the choral music experience should include: (1) Appreciation of beauty and quality in choral singing; (2) Recognition of musical structure; (3) Understanding of part singing; (4) Ability to read music and carry a part; and (5) Comprehension of style and form in choral singing.

CONTENT: The choral music program should provide developmental experience, increasing in complexity from simple two-part to three-part melodies from folk literature, art songs, and current popular tunes. Students should know how to develop a program so that it is paced for optimum audience attention. Material should be taught that will provide a well-rounded program representing selections from various periods of music history as well as contemporary music.

METHODOLOGY: Class time should include the following activities: Vocalization, reading new literature, elementary theory, and memorization of program material.

Attention at this and subsequent levels should be given to the development of the adolescent voice. Methods used in teaching choral music should be designed to shed increasing light on the form and content of music, so that the student in school choral groups can eventually become an independent, self-directing participant and audience member wherever music is found in everyday life. Such methods require choral teachers of significant training and experience.

### MODEL III: An Instrumental Program (Band and Strings)

OBJECTIVES: The instructional program is designed to contribute to the development of the student's musical growth and interest, both as a performer and as a listener.

CONTENT: Beginning instruction in instruments at this level should include basic study in the notation, theory, and instrumental techniques. In a sequential program of this sort, the content ranges from simple introductory material to more technically demanding requirements at the upper levels. The opportunity to study and perform works written for small and large ensembles (including concert bands and full orchestras) should be encouraged at all performance levels.

METHODOLOGY: Early instruction in fundamentals of string and wind instrument playing is given in small classes or sections. It is important that the classes be kept sufficiently small to allow for some initial individualization. Ideally, classes at the elementary, as well as at the upper levels, should meet five days a week. Since the learning rate in such a program will vary from student to student, increased provision for individualization must be part of the overall program. The only guarantee of the use and projection of sound methods in such an instrumental program is the involvement of experienced and technically proficient wind, string, and percussion teachers. Such a program requires and deserves extensive support in the purchase of instruments for student use and other necessary material and equipment.

## MODEL IV: A Keyboard Program

OBJECTIVES: The objectives of keyboard instruction, according to *Teaching Piano in the Classroom and Studio* (1967), are "(a) comprehension of the elements of musical structure, and (b) mechanics and basic techniques of playing that may or may not be indicated by the structure."

CONTENT: *Teaching Piano in the Classroom and Studio* (1967), provides the following statements for an ideal keyboard program:

> In an ideal school system, all children would receive "keyboard experiences" in the general music classes, from kindergarten through high school. These experiences, which would include playing by rote, by ear, and by note, and the creating of musical effects and accompaniments, would gradually increase in complexity from one and two tone ideas to complete melodies, rhythms, and harmonies.
>
> All third and fourth graders would receive piano class instruction three days a week in twenty-minute periods. This would take the place of a general music class because, at this level, piano study is a superior builder of basic musicianship. The ideal piano class would include all types of musical activity--listening, singing, physical expression of rhythm and form, playing classroom instruments such as drums and xylophones, and creating music, in addition to playing the piano. The general music classes held the remaining two days of the week would emphasize artistic singing, listening to music too difficult to perform, and additional physical interpretation of music. Fifth and sixth grade children could "elect" third and fourth year piano classes, classes in orchestral or band instruments, or chorus, during the non-academic periods (preferably) or as a substitute for general music twice a week. After they finish the piano class in the fourth grade (or earlier), children who exhibit special talent and interest in the piano would be advised to study with private or class piano teachers outside of school.

It is important to notice that the exemplary keyboard program is designed for all children and that it provides an important specific learning activity in the structure of the general music program.

METHODOLOGY: The methods in class keyboard instruction would vary according to the size of the class, the sophistication of the students, and the experience and training of the teacher. It is especially important that the approach should provide for common class instruction and for individual potential as well. Such classes will be possible only when sufficient keyboards are available, when programs place a proper priority on music education, and when budgets and practices allow for adequate staffing.

## MIDDLE SCHOOL YEARS

### Present Practices - Art

The present practices during the middle school years in art are similar to those cited for the early school years. The exception occurs where the middle school years include a junior high school. Where a junior high school program exists as an entity, it frequently includes specific art instruction and at least some separate facilities are provided for this instruction. The junior high school program in art is frequently exploratory and allows for a wide variety of artistic activity, frequently determined and sometimes limited by the interests and skill of the teacher.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Art

The emerging mandates cited for the early school years are equally valid for the middle school years. There are, however, some mandates specifically applicable to these years:

**I. ART SHOULD BE REQUIRED FOR ALL STUDENTS IN THE MIDDLE SCHOOL OR JUNIOR HIGH SCHOOL.**

A requirement of this sort at this level allows for the exposure of every student to the aesthetic and the manipulative values of an art course. This activity is especially essential if the elementary school art program has been notably deficient.

**II. THE MIDDLE OR JUNIOR HIGH SCHOOL PROGRAM MUST BE EXPLORATORY AND MUST PROVIDE BREADTH OF CONCEPTS AND EXPERIENCE.**

These experiences should include those designed to develop basic skills and provide the student with a variety of intellectual and effectual contacts with art.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Art

### MODEL

OBJECTIVES: The art program in the middle years has four objectives: Seeing and feeling visual relationships, the creation of works of art, the study of works of art, and the critical evaluation of art.

CONTENT: While the emphasis at this level is still on the making of works of art and the use of a variety of materials and processes, the program aims at the inclusion of more historical, intellectual, and critical content. There is additional emphasis of the use by students of such sophisticated equipment as ceramic kilns, electronic teaching aids, basic hand tools, cutters, and knives. There is additional need for source materials--books, periodicals, color prints, art objects, and circulating and permanent exhibits of original works of students and professional artists. The program should likewise allow for the use of expendable materials, including cardboards, adhesives and solvents, fabrics and fibers, paints, inks, chalks, crayons, clay, glazes, metals, wire, wood, and linoleum.

METHODOLOGY: Those methods calculated to bring the creative and inventive factor of the student under reasonable artistic discipline should be introduced during the middle school years. The maturing student should be encouraged to use not only the materials available, but the reference library may coordinate the program to make the student aware of the implications of art in the society in which he lives.

# MIDDLE SCHOOL YEARS

## Present Practices - Special Education

### Educable Mentally Retarded

As listed in the early school years, the same counties (Churchill, Clark, Elko, Lincoln, Lyon, Ormsby, Washoe, and White Pine) maintain classes for the educable mentally retarded in the middle school years. In the absence of a specific state policy in respect to class size maximums, the several districts with programs for the educable mentally retarded have established class size limits, and all class sizes in the State now have an enrollment of from ten to fourteen students in the middle years or intermediate level. Smaller classes sized at this level are necessary in order to give the individual assistance required.

### Trainable Mentally Retarded

Classes for children in the middle school years in trainable retarded programs are involved in a continuation of the programs cited in the section of this category in the early school years. The programs are conducted in a school setting and afford constant opportunity for success on their own level of achievement at their own pace. Emphasis is placed upon training, but as trainability exists in degrees, provision is usually made for pupils at the upper levels who are capable of profiting from instruction. Each pupil is helped to determine and develop individual abilities. The emphasis in most cases is, however, placed upon cooperation and participation in all or most class activities where training is given in developing acceptable conduct and accepting responsibilities. In these programs the specific purpose for the schools is to assist the family and the community in developing for the child acceptable behavioral patterns and instilling these patterns and the accompanying attitudes through training.

In all programs in Nevada established for the trainable mentally retarded, parent-teacher conferences are an important part of the program. Such conferences provide for the teachers the opportunity to work closely with the parents of each student. They also provide the school with the opportunity to offer counseling and guidance to the parents in order to effect a better understanding of the pupil in the school as well as in the home.

### Physically Handicapped

As stated in the early school years section, Clark and Washoe Counties are the only counties in the State that offer special educational opportunities to the physically handicapped. Each district designs its program with consideration given to the several approaches which will be of most benefit to the child. These approaches may include:

1. Regular class attendance with regular periods of individual help.
2. Special class placement combined with regular classroom attendance.
3. Special class placement with regular periods of individual help.

The child in any one of these educational approaches follows essentially the same curriculum that would be offered him in a typical class. Adaptations

176 /177

are made in time to allow for completion of assignments, and the reduced number of students allows for more varied and individual approaches by the teacher.

In each case, the child is encouraged and permitted to be as independent as his physical disabilities will allow. Every effort is made to integrate the child in special education into the entire school program rather than confining him to a special class separate and apart. The program is in a school setting and centers about education with modifications for the physical disability.

## The Visually Handicapped

A. The Blind

The classes in Clark and Washoe Counties for the blind in the middle school years are a continuation of those described for children in the early school years.

B. Partially Sighted

Children enrolled in classes for the visually handicapped at the intermediate level in the two most populous counties continue the program reported for the early school years.

## Auditorily Handicapped

A. Deaf

At the present time the only classes for deaf children in the middle school years are in Clark County. All other districts have, to date, been unable to serve children suffering from this handicap due to an insufficient number of deaf children to warrant a specific class and also because of a lack of qualified personnel in this area.

B. Hard of Hearing

Clark County maintains a comprehensive program for the hard of hearing in the middle school years. Washoe and Ormsby Counties conduct partial programs for children with this handicap. In Washoe County the program for hard of hearing children provides a resource room for those elementary school children who need daily help in speech, reading, auditory training, and the language arts. The program in Ormsby County is one wherein the handicapped student is helped by personnel trained in the speech and hearing arts.

## The Multiply Handicapped

Only Clark County provides services for multiply handicapped children. The program in the middle school years is a continuation of the program described in the early school years.

## Educationally Handicapped

As previously stated, this category includes students identified as emotionally disturbed and neurologically handicapped. Clark County, Churchill

County, Mineral County, Washoe County, and White Pine County have classes. In most intermediate classes, as in most primary classes for the emotionally disturbed, instruction is conducted in an environment that is as free of stress as possible, but one in which there is an established routine. The student is first helped to work by himself, then gradually he is helped to work in a larger and larger group until he is finally capable of independent work while functioning as a member of a full-size regular class. These classes represent an attempt to approach students termed "emotionally disturbed" on an individual basis through the use of educational therapy. The emphasis in this program is upon education, and the class is psycho-therapeutic only to the degree that tutoring and remedial teaching are forms of therapy.

### Home and Hospital

In the middle school years this program is a continuation of the program explained for the early school years.

### Speech Therapy

Comprehensive programs are continued in the middle school years in Clark and Washoe Counties. Partial services are continued in Churchill and Ormsby Counties.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Special Education

The program of the middle years should be a continuation of the program provided in the pre-school and early years. It should become more individualized in the specialized areas and more integrated into the total school program in the general areas. The mandates of the early years also apply to the middle years. In addition to these, two other mandates emerge from the present practices of the middle school years.

**I. WHEREVER POSSIBLE, HANDICAPPED STUDENTS SHOULD BE INTEGRATED INTO THE REGULAR SCHOOL PROGRAM.**

Experiences in the regular curriculum will enable the handicapped child to establish realistic goals and to lead a better balanced life at home and in the community, both during his school years and as an adult. This integration should include the areas of physical education, recreation, music, art, crafts, science, and any other fields to which an individual shows adaptability.

**II. A TEACHER-COUNSELOR SERVICE SHOULD BE ESTABLISHED.**

This service would assist pupils of all degrees of disability with their adjustment to both special and regular classes. It would also provide counseling and support for regular classroom teachers in dealing with handicapped students in their classes. This service would also help serve as a finding, screening, and referral service for candidates for special class programs.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Special Education

MODEL

OBJECTIVES: The program of the middle school years will be a continuation of the program provided in the pre-school and early years. It will be more individualized in the specialized areas and more integrated in the total school program in the general areas. Teacher-counselor services will be an intergrowth part of the middle years program.

CONTENT: The content should reflect the needs and capabilities of the student. Where possible, the specific content reflects limited integration of the student into selected areas of the regular program. Integration into the school program might include the areas of physical education, recreation, music, art, craft, science, and any other fields to which an individual shows adaptability. Every child is going to have some areas in which integration is possible, so the list of disciplines in which this is practical is all-encompassing. No one child will be able to enter all programs on this basis.

METHODOLOGY: Integration into the regular school program means additional problems for the classroom teacher. For this reason, a teacher-counselor service needs to be established. The special student has special problems. The regular classroom teacher is not fully equipped to deal with all of these problems. The counselor, trained in dealing with the unique problems of special education students, will bridge the gap between teacher and special education student, and make the student experiences in the regular program helpful to his growth. It can also be noted that these counselors, when properly trained in psychological and mental testing methods, will carry on the program of adequate case diagnosis outline for earlier levels.

## MIDDLE SCHOOL YEARS

### Present Practices - Guidance and Counseling

The present practices in the guidance and counseling program cited for the early school years continue with little or no change through the middle school years. The major exception to this is a reflection of school administrator organization rather than anything related directly to guidance and counseling. In general practice, where the middle years encompass a separate junior high school program, more school counselors are available than in systems extending the elementary school through the eighth year. For example, in 1967-68 there were eleven elementary school counselors in Nevada, but there were forty-four junior high school counselors. This figure does not include counselors working in combined junior-senior high schools, and represents an average of only two counselors per junior high school. The number of counselors assigned to junior high schools and available therefore to students in the upper middle years, while certainly not adequate, presents a more hopeful picture for guidance and counseling than does the number assigned to the elementary schools.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Guidance and Counseling

The mandates stated in some detail for the early school years apply in extension into the middle years.

## MIDDLE SCHOOL YEARS

### Recommended Exemplars - Guidance and Counseling

The extensive exemplar cited for Guidance and Counseling in the early school years was intended to and does adequately provide a model for the middle school years.

## MIDDLE SCHOOL YEARS

### Present Practices - Occupational Guidance

The emphasis of the middle school years guidance program is upon the inculcation of efficient and effective attitudes, habits, and skills through a series of applied activities which include work, study, and play. The guidance program becomes more individualized at this level. However, individual and group counseling techniques are employed.

The occupational portion of the guidance program assumes a more definite or distinct shape at this time as it begins to focus upon assisting the student to think about and/or explore various fields of occupational interest. The occupational guidance program usually employs various testing instruments at this level in order to assist the student, his teachers, and his parents in developing a realistic appraisal of the potentialities available for development in terms of occupational endeavors.

The occupational information program seeks to portray the world of work in realistic terms to capitalize upon the student's increasing maturation of insight and to assist the student in his formulation of more realistic life goals. The objective at this level is to stimulate occupational interests and to provide experiential and exploratory opportunities in order to develop an appropriate preoccupational awareness of the world of work. The occupational guidance activities focus upon presenting a view of the world of work in terms of its changing nature, its trends, it demands, requirements, and its satisfactions. There are presently twenty-five junior high school guidance programs in Nevada.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Occupational Guidance

I. **THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD INITIATE AND DEVELOP CHANNELS OF PROVIDING A BRIDGE BETWEEN THE PHASE OF THE TENTATIVE RESPONSES TO THE WORLD OF WORK AND THE PHASE WHERE THE EMPHASIS WILL BE UPON PROBLEM-SOLVING COMPETENCIES.**

Utilization of both group and individual counseling sessions oriented toward introducing various career fields could become part of the regular curriculum exposures in order to develop the bridge between tentative responses to the world of work and the period of decision making. Such exposures could deal with clusters of occupation, for example, those pertinent to industry, health, agriculture, transportation, trade, and professional areas. Exposures could make use of audio-visual media, guest speakers, field trips and special shop and/or home economics projects, and thereby serve to provide at least an introductory level of exposure to the world of work. Exposure periods could be scheduled at weekly intervals utilizing regular free period time slots. The Niles County, Michigan, program establishes a sufficient point of departure for the organization and implementation of such a program. The incorporation of community youth programs such as scouting, 4-H, and similar groups also provides for the reinforcement of the development of occupational awareness, since many of these programs include units of occupational exploration.

## II. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD CONCENTRATE UPON DEVELOPING EXPERIENTIAL EXPLORATORY EXPOSURES TO THE WORLD OF WORK.

Dr. Robert Hoppock, Professor of Education, New York University, in his third edition of Occupational Information, published in 1967 identifies occupational information that is needed, where to get it, and how to use it in counseling and in teaching. He identifies the plant tour as coming closest to perfect teaching, for everyone learns, everyone enjoys it, and nobody feels overworked. He also sees this as a time when students can see, hear, feel, and smell the work environment.

If a plant tour is impossible, Hoppock suggests the possibility of group conferences with employers and employees. In preparation for a group conference students should be encouraged to prepare a few vital questions in advance.

A frequently overlooked technique available in every community is to invite recent alumni and/or school dropouts to return to school to give talks to students in a class or in an assembly. Most of the students in school will listen closely to their comments and suggestions for their age differences are slight and students respect the newly gained knowledge that is reported.

## III. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD INVOLVE EVERY COMMUNITY RESOURCE CAPABLE OF BROADENING THE STUDENT'S OCCUPATIONAL AWARENESS.

Involvement of community resources also includes parents of children at this age level. In order to facilitate the involvement of parents and maintain their involvement on a continuing basis, a parental course in occupational guidance could be established which might be organized into the following units suggested by the B'nai B'rith Association:

1. Why occupational guidance?
2. What is occupational guidance?
3. Psychological testing.
4. Adolescent personality and occupational choice.
5. Concerning high school and college.
6. The parents' role.
7. Occupational information.
8. You and your child's career.

In most academic vocational classes it is possible to practice job interviews with real personnel officers, dramatize real or hypothetical situations, write practice letters of application, or write actual letters of application for summer jobs. Although supervised field trips are usually more efficient and time-saving, it is possible to arrange for students to visit an industry or company on their own. The student observer will learn much from such a visit, and he can share his experience with his classmates.

## IV. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD CONTINUE BOTH THE OBJECTIVE AND THE SUBJECTIVE ASSESSMENT AND EVALUATION OF THE INTEREST AND ABILITIES OF EVERY STUDENT.

The detection and reporting of student characteristics and abilities is more graphically presented and more readily understood when the profile testing technique is one of the properly used components of the guidance program. A profile sheet is derived from the results of several tests selected from among appropriate tests such as: Vineland Social Maturity Scale, Peabody Picture Vocabulary Test, Iowa Silent Reading Tests, Stanford Achievement Tests, Wechsler Intelligence Scale for Children (WISC), Iowa Tests of Basic Skills, Stanford-Binet Intelligence Scale (Form L-H), Metropolitan Achievement Tests, Kuder Preference Record and Interest Surveys, Gordon Occupational Checklist, etc. (For authoritative information concerning other tests and/or any of the above, refer to Buros: The Sixth Mental Measurements Yearbook.

Profile sheet evaluation and consultation with the student, parents, and teachers can provide the key to a reading program, for example, to be regarded as part of the language arts curriculum. Such a reading program would be designed by and for the individual student and with the intent of increasing interest in occupations and the yield of pertinent occupational information.

## V. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD CONTINUE TO INTEGRATE ACADEMIC AND OCCUPATIONAL INTERESTS.

Coordination of the academic and occupational interests of the student can be facilitated through a program of special projects. For example, students with proficiencies in English might pursue a study of biographies pertinent to their own occupational interests. Opportunities for field exposures could be provided on an individual as well as group basis which might also serve as a vehicle for involving the parents and thereby strengthen the impact of the program. Follow-up experiences which provide first-hand exposure, such as field trips, are additional vehicles for coordinating occupational exploration with academic endeavor. They are designed to move with the student from the fantasy toward the reality stages of viewing the world of work.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Occupational Guidance

### MODEL

OBJECTIVES: The program in occupational guidance for the middle school years should aim especially at the assessment and evaluation of the student's position in relation to the world of work.

CONTENT: A variety of testing procedures designed to make a reasonable assessment of the student's interests, abilities, and inclinations relative to career decisions should be utilized in the program. Information and counseling regarding appropriate occupations should be made available to the students.

METHODOLOGY: It is important that some methods for practical application of testing procedures in the derivation of activity-performance recommendations be formulated. The Richmond, Virginia, program of selection criteria might well be employed in this manner to depict a student's capabilities in relation to specific career interests and endeavors. Utilization of both group and individual counseling sessions oriented toward introducing various career fields could become a part of the regular curriculum exposures in order to develop the bridge between tentative responses to the several clusters of occupations and the period of decision-making. Such exposures could deal with clusters of occupations. Exposures could make use of audiovisual media, guest speakers, field trips, and special shop and home economics projects, thereby serving to provide at least an introductory level of occupational exposure. Exposure periods could be scheduled at weekly intervals, utilizing regular free period time slots.

The incorporation of community youth programs such as scouting, 4-H, and similar groups will also provide for the reinforcement of the development of occupational awareness, since many of these programs include units of occupational exploration.

Involvement of community resources will also include parents of the children of this age level. A parental course in occupational guidance might facilitate the involvement of parents and maintain this involvement on a continuing basis.

Coordination of the academic and occupational interest of the student can be facilitated through a program of special projects. For example, students with proficiencies in English might pursue a study of biographies pertinent to their own occupational interests. Opportunities for field exposures could be provided on an individual basis to strengthen the impact of the program.

## MIDDLE SCHOOL YEARS

### Present Practices - Industrial Arts Education

At this level the Industrial Arts Program assumes identification as a formalized program of instruction centered in the laboratory. As a course of instruction, it concerns itself with the materials, processes, and products of manufacturing and with the contribution of those engaged in industry. Learning comes through experience in the manipulation of tools and materials and by studying the conditions of the world of work. The instruction, localized in the shop unit, deals with the following areas: Auto mechanics, woodworking, metalworking, machine laid operation, drafting, electricity, and some arts and crafts instruction in arts metals, ceramics, lapidary, leather, plastics, pottery, woodburning, and wood carving. Students are offered the opportunity to work in a variety of shop areas in breadth and depth commensurate with their interests and their levels of maturity. The curricular patterns in Industrial Arts Education commence at this level and expand in subsequent years. In order to arrive at a level of industrial proficiency, learning experiences are predicated on consecutive patterns.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Industrial Arts Education

I. **INDUSTRIAL ARTS PROGRAMS, WHICH FOCUS ATTENTION UPON THE PRACTICE OF RESTRICTING SHOP ACTIVITY TO INDIVIDUAL PROJECT WORK, MUST BE REDESIGNED TO INCLUDE MORE GENERAL ACTIVITIES AND USE OF TOOLS.**

The fragmentation and prodigious waste of the established practice is not productive and should not be supported or tolerated.

II. **EMPHASIS IN INDUSTRIAL ARTS EDUCATION MUST BE PLACED ON ORGANIZING AND DISSEMINATING AN EVER-INCREASING AMOUNT OF INTERRELATED INFORMATION CONCERNING OUR MODERN TECHNOLOGICAL SOCIETY.**

The complexity of modern technology challenges the curriculum to present information in meaningful patterns and to make clear its application to industry and trade.

III. **THE EMPHASIS ON THE FUNDAMENTAL CURRICULAR COMPONENTS--DRAWING, WOODWORKING, ELECTRICITY, AND METALS--SHOULD BE EXPANDED TO INCLUDE PLASTICS, LEATHER, ART METALS, GRAPHIC ARTS, CERAMICS, JEWELRY, LAPIDARY, MOSAICS, AND WOOD CARVING.**

The added dimension opens new and varied possibilities for eventual employment and makes the total learning experience both more flexible and more meaningful.

IV. **EXPLORATORY EXPERIENCES AND INVOLVEMENT WITH THE ESSENTIAL ORGANIZATION, PROCESSES, AND MATERIALS OF INDUSTRY MUST BE INSTITUTED.**

Learning by actual involvement gives meaning and point to those experiences of a related academic nature. They demonstrate their application and their purpose, and they direct the total process toward the job itself.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Industrial Arts Education

### MODEL

OBJECTIVES: The industrial arts program will be exploratory, providing exposure to a variety of industrial formats, materials, occupational endeavors, and essential skills. It will be comprehensive, facilitating self-discovery by student-oriented experiences guided by student interest, aptitudes, and manipulative inclinations.

CONTENT: The program will first provide student activities in basic content--drawing, bench metal, electricity, woodwork. It will provide, secondly, specialized activities in sketching, project planning, plastics, industrial crafts, leather, art metal, graphic arts, ceramics, jewelry, lapidary, wood carving, and mosaics. Activities in specialized areas will be determined by student interest and inclination.

METHODOLOGY: The instructor and instructor's aides will focus attention on individual students and direct a maximum of student involvement. Application of language, science, and math will be as frequent and structured as possible in order to accomplish the interrelationship of disciplines. For example, the keeping of books in business education can be easily applied in the industrial arts program. The writing of reports and other communicative skills necessary to giving and following directions as studied in language arts also have relevance for industrial arts. The acquisition of formulas or vehicles for expression as studied in math are likewise germane to the industrial arts program.

The time period allocated to each exploratory shop unit should not be less than 45 minutes per day, 5 days per week.

## MIDDLE SCHOOL YEARS

### Present Practices - Health Occupations Education

Although considerable variation exists in the Nevada public schools in the approach to the spectrum of health maintenance and health occupations and their relationships to the individual, there are usually some health education components generally found in the science and/or physical education programs. These components are usually focused upon a continuation of basic principles of personal physical and mental hygiene and environmental cleanliness as introduced in the early school years.

Health occupations education is not in present practices related directly to the individual's experience, nor is health occupations education articulated closely enough with social studies and science. Insufficient emphasis in the middle school years curricula is presently placed upon the variety of roles necessary and possible in the field of health occupation. Too little opportunity for exploration of these career fields is proffered.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Health Occupations Education

I. **INTRODUCTORY AND EXPLORATORY PROGRAMS OF HEALTH OCCUPATIONS EDUCATION MUST BE DEVELOPED AND RELATE TO THE HYGIENE COMPONENTS WITHIN THE CURRICULUM.**

Such programs should begin in the elementary grades and continue into the upper grades, so that the scope of good health care can be presented as the all-inclusive and fundamental element which it is in our society. Emphasis should be placed upon a variety of roles necessary and possible in the field of health occupations. Opportunities for tentative exploration of these career fields should also be proffered.

II. **HEALTH OCCUPATION EDUCATION MUST BE RELATED DIRECTLY TO THE INDIVIDUAL'S EXPERIENCES SO THAT THERE IS A GENERAL PROGRAM OF GOOD HEALTH CARE, SINCE THE HABIT DEVELOPMENT AND VALUE OF GOOD HEALTH HAS HIGH PRIORITY IN OUR SOCIETY.**

Awareness of the implications of personal practice for health-related occupations should be fostered on this basis. The student who places high value on health will be highly motivated toward such occupation.

III. **HEALTH EDUCATION PROGRAMS MUST BE RELATED TO AT LEAST TWO OF THE ACADEMIC STUDY AREAS--SOCIAL STUDIES AND SCIENCE--AS WELL AS TO THE PHYSICAL EDUCATION PROGRAM.**

Coordinated teacher planning by the use of conferences and coordinated, reinforced program activities should serve to facilitate this interest.

IV. **EMPHASIS MUST BE PLACED UPON THE DEVELOPMENT AND MAINTENANCE OF GENERAL PHYSICAL AND MENTAL HEALTH, AND UPON MAINTENANCE OF A CLEAN ENVIRONMENT.**

The relationship of environmental and personal health offers broad opportunities to expand the scope of health occupations. The social implications of the current concern for developing and maintaining a clean environment gives the health occupations program special pertinence.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Health Occupations Education

### MODEL

OBJECTIVES: The program should orient the student in the middle years to the roles played by health professionals and the opportunities that exist for the individual in this field.

CONTENT: Material bearing upon the part played by doctors, dentists, physical therapists, technicians and others engaged in health occupations should be made available to the students. Information pertaining to the necessary preparation for entering the profession should be available and should be discussed.

METHODOLOGY: It is particularly important that a manner of presenting the material be made as vital as possible. Audiovisual material, field trips, socio-dramas, individual research endeavors, and actual experimentation in laboratory situations are most useful. In addition, the child involvement in scouting, 4-H, or other youth organization exploratory programs may serve to stimulate interest and to provide mutual reinforcement for both the school and the organizational program. This implies a closely connected cooperative effort between the school and the youth organization where the child experiences maximum exploratory opportunities in the health professions field.

## MIDDLE SCHOOL YEARS

### Present Practices - Business and Office Occupations Education

Elementary school typewriting does not exist for the same reasons as it does on the higher school levels. It is offered largely to promote the learning process in such activities as spelling, reading, comprehension, word perception and detail, punctuation, creativity in form and design, and expression. Consequently, the typewriter is taught almost exclusively as a writing machine rather than a copying machine. The elementary student is not concerned with learning how to type a business letter. It is not particularly important that he be concerned.

Elementary school students have little difficulty in learning to type by touch on electric machines. Manual typewriters require more strength to operate than electric typewriters, so the lack of coordination, particularly for the lower grade students, is not evident when using electric typewriters. Students at about the age of ten have developed the coordination and maturity to cope with typewriting tasks.

The subject of economics was for many years offered only in college and in high schools. It is now considered highly practical and necessary as an elementary school subject and is being taught at all grade levels. Of course, economics in the elementary school curricula is not identified as such, but appears disguised in other subjects in which such concepts as distribution, production, and consumption of goods are relevant.

## MIDDLE SCHOOL YEARS

### Emerging Mandates - Business and Office Occupations Education

I. **THE CHIEF ROLE OF THE BUSINESS EDUCATOR IN THE ELEMENTARY TYPEWRITING MOVEMENT MUST BE THAT OF CONSULTANT IN METHODS OF TEACHING AND THAT OF ADVISOR CONCERNING THE PHYSICAL ENVIRONMENT FOR LEARNING TO TYPEWRITE.**

Since, at this level, the business education program aims are more closely related to orientation than to skill development, the business educator often operates primarily in a supportive capacity. His aims are of necessity long-range and frequently diffuse.

II. **TYPEWRITING EDUCATORS MUST LEAD THE WAY IN USING THE TYPEWRITER TO PROMOTE THE LEARNING PROCESS WITH DISADVANTAGED GROUPS.**

To do so will require constant innovation and creativity. An area of importance in the future will be the use of the typewriter in the elementary school to facilitate the learning process with the mentally retarded, the physically handicapped, and other disadvantaged youngsters. For many years, typewriting has been a core subject in schools for the blind, beginning in the third or fourth grade and continuing each year throughout the senior high school.

III. **HIGH SCHOOL AND COLLEGE BUSINESS TEACHERS MUST PLAY A MAJOR ROLE IN DEVELOPING THE ECONOMIC CONTENT OF THE ELEMENTARY SCHOOL CURRICULUM.**

In general, these teachers have had as much or more training in economics as have social studies teachers. They are, therefore, in a position to cooperate with elementary teachers by supplying them with materials and advice on economic curricula.

## IV. THE TEACHING OF ECONOMICS MUST NOT BE DELAYED UNTIL HIGH SCHOOL OR COLLEGE IF WE ARE TO IMPROVE ECONOMIC LITERACY.

Elementary students have demonstrated the ability to deal with abstractions and analysis provided the concepts are related to the maturity of the youngster. The basic philosophy on which the scope and sequence of economics education in school may be built is one in which the concepts introduced at the first grade are not terminal, but rather open the doors for increased understanding. Anything as vital and fundamental to daily life as economics should be learned at the earliest possible level of formal education.

# MIDDLE SCHOOL YEARS

## Recommended Exemplars - Business and Office Occupations Education

### MODEL I: Typing

OBJECTIVES: Typewriting will be offered to promote learning experiences in such activities as spelling, reading, comprehension, word perception, and detail, punctuation, creativity in form and design, and expression.

CONTENT: The typewriter will be taught as a writing machine rather than a copying machine. An area of concern will be the use of the typewriter in the elementary school to facilitate the learning process with the mentally retarded, the physically handicapped, and other types of disadvantaged youngsters.

METHODOLOGY: The chief role of the business educator in the elementary typewriting classroom will be that of consultant in methods of teaching and that of advisor concerning the physical environment of learning. Typewriting teachers will lead in developing activities to promote the typewriter in learning processes with disadvantaged students.

# PREVOCATIONAL YEARS

## An Introduction

The prevocational years constitute a period of emphasis on a particular curricular purpose in the student's educational life rather than a plan of school organization or cluster of chronological years. This period of curricular emphasis is characterized by an increased educational scope through additional course offerings, subjects pursued in greater depth than at earlier levels, concentration of the interrelatedness of subject matter, and assistance to the individual in self-analysis to provide competence in assuming self and societal required responsibilities. Education during the prevocational years is focused upon exploration of alternative curricula enabling the individual to determine whether to direct his education toward college preparation or toward vocational preparation.

Present organizational practices in Nevada are generally consistent with those of other states. The junior and senior high school pattern of organization and curriculum provides six years of education for the largest number of pupils in the twelve to seventeen year age group.

The adequacy of the junior high school as a structure for future curriculum design is being questioned. Many innovations and curricular advances have been designed and implemented without consideration of the junior high school as a unit. Characteristically the curricula of the junior high school can be summarized as an elongated and enlarged elementary school program combined with a scaled-down senior high school program. Other age-level groupings such as the "middle school" are changing the traditional patterns nationally.

The elongation aspect of elementary school subject matter is well illustrated by the treatment of English, science, social studies, and arithmetic. In these disciplines, the methodology and the processes are essentially the same as those of the middle school years, and the content material suffers from excessive repetition. Junior high school home economics and industrial arts are two common examples of scaled-down senior high school programs. The student who pursues these studies, with the possible exception of arithmetic, at the junior high school level will encounter them again in senior high school. The topics may be treated in greater depth, but even this is relatively unusual.

Senior high school curriculum is designed largely for college preparation, and in this mode, it is fairly effective. Nonetheless, subjects are studied in departments which are often isolated from one another. There is little interdisciplinary coordination and when the interrelatedness of topics is not considered, the practical significance of knowledge may be lost to the student.

A greater problem posed by senior high school programs is the lack of comprehensiveness. A significant number of students are unable or unwilling to adapt themselves to the curriculum and consequently drop out of school prior to the level when they can find ready employment. There are some notable improvements in the State designed to provide quality education for the vocations--outstanding among these is the program at the Southern Nevada Vocational-Technical Center in Clark County.

204/205

During the prevocational years students must be taught those essential learnings which do not become obsolete with change; how to work with others, how to communicate, and how to solve problems and think critically. Prevocational education is designed to help individuals develop both the cultural tastes and the practical skills which will help them to become happy, effective members of society and which will contribute to self-fulfillment.

## PREVOCATIONAL YEARS

### Present Practices - Reading

The formal reading instruction at the prevocational level is restricted almost entirely to remedial reading, although remediation at these upper levels is far less productive than it is in the earlier years. This does not indicate that remedial reading at the high school or junior high school levels should be abandoned but rather that remediation at this level may require more daring and imaginative, not to say desperate, measures than programs instituted at an earlier level.

Instruction in reading other than remedial presently involves encouraging the student to read widely and to follow a prescribed course in literature. The success of the literature program corresponds almost exactly with the reading and comrehension skills students have already developed. In most of our schools we are still requiring even those with low reading ability to struggle with the intricacies of the plays of William Shakespeare and with poetry and prose far beyond the level of their skills and sophistication. When the challenge is unrealistic, the frustration level is high, and disenchantment with the whole reading process is an almost inevitable result.

There are very few programs currently operating which are designed to increase the speed and comprehension of students without marked deficiencies. Specific developmental reading instruction at this level that is not incidental to the literature program is rare in Nevada.

## PREVOCATIONAL YEARS

### Emerging Mandates - Reading

I. **READING INSTRUCTIONS BY TEACHERS TRAINED IN THE FIELD MUST BE AVAILABLE ON BOTH A DEVELOPMENTAL AND REMEDIAL BASIS AT THE PREVOCATIONAL LEVEL.**

Developmental instruction should devote increasing attention to the teaching of study skills and reading skills in subject matter areas. This means specific and competent instruction in the techniques of increasing speed and comprehension.

II. **THERE MUST BE CONTINUED PROVISIONS FOR REMEDIAL READING.**

In this program special attention should be given to the motivation of the students through the presentation of new and effective alternatives to methods and materials which have proven unsuccessful for the student in the past. These alternatives should include the use of media and programmed material as well as linguistically sound texts.

III. **THE STUDENTS MUST BE ENCOURAGED TO READ WIDELY AND CRITICALLY.**

To this end, realistic literature programs for students of varied reading and comprehension skills should be developed. Special attention should be given to the level of difficulty and to the interest factor in the reading. With some students it is important, primarily, that they be encouraged to develop skills in the critical reading of contemporary publications rather than flounder hopelessly in more difficult and exotic reading material.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Reading

### MODEL I: The Developmental Reading Program

OBJECTIVES: The development of reading skills, comprehension, and sensitivity is important on a continuing basis in the prevocational years. A developmental reading program recognizes even good and experienced readers can improve these skills. Time spent in systematic work to this end can greatly increase the efficiency and academic effectiveness of the student.

CONTENT: Basic materials in reading instruction should have content of high interest to the student, and specific skills developed through their use should be systematically applied to the student's reading in all disciplines. For example, if the student develops, through specific instruction, an understanding of the structure of paragraphs as an aid to comprehension, he should be given an opportunity to apply this skill in order to see clearly the positive results of his efforts. Thus, the developmental reading program will consciously increase the skill of the already skillful and will give him adequate opportunity to apply these skills.

METHODOLOGY: The reading teacher will be prepared to direct learning experiences in skill development and to provide opportunity for skill application in other disciplines. Reading experience will be rich and varied and will be aimed at the student needs and interests.

In this way, the reading program will concern itself with the teaching of reading as reading. It will provide the more skillful student with the means and the motivation for sharpening his reading and study skills.

### MODEL II: The Remedial Reading Program

OBJECTIVES: The remedial reading program at the prevocational level will provide instruction aimed at achieving a level of functional reading for all students within their native potentials. The program will take into account the years of frustration and failures that have made such programs necessary, and will provide strategies of learning designed to establish patterns of success.

CONTENT: The remedial program will take every precaution against the use of materials that have hitherto produced frustration and failure. Remediation at this level can well afford to be innovative and daring. A wide variety of alternative materials will be available and will be used. The subject matter may be basic and simple, but it must never be childish.

METHODOLOGY: Students in remedial reading will be checked for visual and perceptual problems, and if these exist they should be corrected insofar as possible.

The remedial program will not repeat the methods and tactics that have hitherto contributed to the student's failures. Classes in remedial reading will be kept small to allow for a maximum of individual instruction. The programs instituted for each student should be individually prescribed to take into account his particular needs, his strengths, and his weaknesses. Even for students with a limited reading potential there can be a meaningful practical application of reading skills based on the demands of the labor markets. If a student can be lead to succeed in reading by responding to a job application, this is better for him than failing at some reading task unrelated to his interests and capabilities. Such a program will offer for the less able reader specific instruction aimed at bolstering his weaknesses and developing his reading skills at least to the level of functional literacy.

## PREVOCATIONAL YEARS

### Present Practices - English

The several strands of the English program continue during the prevocational years. The emphasis on one aspect or another of the program is varied, but some valid generalizations may be drawn.

The English composition program varies widely from school to school and from teacher to teacher. Some schools require a minimum number of themes of prescribed length. In other schools, the requirements are quite flexible. The writing frequently but not always bears some critical relationship to the literature program. Many schools, despite persistent advice against the practice from colleges and universities, still require a so-called research paper. The thinking of the modern rhetorician is rarely brought to bear on the composition program. While there is little evidence that the continuing drill in classifying parts of speech bears any fruit in the improvement of student writing, student papers are often evaluated more on the basis of mechanical proficiency than on content, organization, or style.

The teaching of grammar and usage, usually with no distinction made between them, is common. The tedious classification of words, the dissection of sentences, and the performance of textbook exercises is still part of many programs. Continued instruction in spelling, punctuation, capitalization and the like repeats similar instruction in past years.

The literature covered in present programs varies widely. The programs usually present drama, including a Greek tragedy, representative Shakespearean plays, and perhaps one or two modern dramas. Poetry is usually limited to selections from standard anthologies. Prose fiction is likewise selected from standard anthologies except for novels chosen for class reading. Even these may be found in abridged form in some available anthologies. These works are supplemented by individualized reading outside of class, frequently culminating in a book report. Despite its shortcomings, the required outside-of-class reading is virtually the only flexible feature of some present literature programs.

## PREVOCATIONAL YEARS

### Emerging Mandates - English

The emerging mandates in English for the prevocational years are profound in their implications and include within their scope extensive changes in subject matter, mode of presentation, and, indeed, a realistic reappraisal of the entire English program.

**I. PROGRAMS MUST ALLOW FOR MORE FLEXIBILITY AND MORE INDIVIDUALIZATION.**

As the student reaches his upper years, his goals become more divergent and a lockstep English program, difficult to defend at any level, becomes totally indefensible. The program must meet the needs of the academically and linguistically gifted child; it must meet the needs of the increasing numbers of less gifted students who rightly aspire to a college education; it must meet the cultural and vocational needs of the non-college-bound student. Such a program requires bold thinking, a willingness to break with tradition where tradition has not done and is not doing what it should for the student, and a stern insistence upon the retention and expansion of humanistic values in the program.

The several parts of the program, developed in the earlier segments, continue through these years, but with the following specific emphasis:

II. THAT PORTION OF THE LANGUAGE STRAND WHICH CONCENTRATES ON THE SYNTAX AND BASIC GRAMMATICAL STRUCTURES SHOULD TERMINATE AT THE EIGHTH OR NINTH YEAR OF SCHOOL.

There should be no repetitious review of textbook syntax thereafter. If, at this level, the student has not grasped the basic syntactical principles of the languages, he is not likely to do so through additional instruction, and the effect of the repetition on students who long understood these principles is devastating.

III. MATTERS OF USAGE, IN BOTH ORAL AND WRITTEN COMMUNICATION, MUST BE DEALT WITH REALISTICALLY AS THEY ARISE.

The rationale for standard English usage should be reaffirmed, and judgments should be linguistically rather than morally oriented. "Non-standard" as applied to a solecism carries no such moral stigma as that implied by "wrong" or "bad." We must remember that a moral judgment on usage may reflect on the student's parents or on his friends.

IV. THERE MUST BE AN INCREASED EMPHASIS ON THE COMPOSITION PROGRAM.

This program should be primarily concerned with expository writing and should support this by a rigorous program in logic and rhetoric. The mandate that the student be taught to write clearly and effectively is fundamental to the composition strand at this level. To write logically, the student must know some logic. To write with rhetorical effectiveness and astuteness, the student must know some rhetoric. To have something to say, the student must observe acutely, read widely, and listen discriminately.

V. THERE MUST BE A FRESH APPROACH IN THE LITERATURE PROGRAM TO THE CHOICE OF READING MATERIALS AT THE UPPER LEVELS.

There is a general demand for a renewed emphasis upon the contemporary and for a stringent reevaluation of the works traditionally offered from the past. No literary work should be allowed to remain in the core curriculum of required readings without a periodical reexamination of its values. The proliferation of paperback editions of great works of the past suggests that a broadly based literature program allowing for far more individualization than usually exists may, in part at least, fulfill this mandate.

VI. APPROPRIATE PROGRAMS MUST BE DEVELOPED IN THE LANGUAGE ARTS FOR THE NON-COLLEGE-BOUND AND THE VOCATIONALLY ORIENTED STUDENTS.

There is increasing need for meaningful programs designed especially to meet the needs of those who are not going to college. These programs should not be the old preparatory programs diluted, but imaginative new programs constructed cooperatively by linguists and teachers with extensive vocational teaching experience. To be genuinely meaningful, it is probable that such programs should focus carefully on the vocational language needs of the student.

## PREVOCATIONAL YEARS

### Recommended Exemplars - English

### MODEL I: The Composition Program

OBJECTIVES: The objectives of the prevocational composition program is to enable the student to write clearly, effectively, logically, and sensitively.

CONTENT: The composition program at this level should emphasize expository writing and should support this by a rigorous program in logic and rhetoric. Fundamental logical concepts, such as those set forth in John C. Sherwood's Discourse of Reason or Monroe Beardsley's Thinking Straight, can form the basis of a study in elementary logic. It should be emphasized that the program should be concept-centered. Merely to substitute endless exercises in logic for the old exercises in grammar and usage represents little gain.

The concepts of modern rhetoric, represented by the work of such men as Francis Christianson, Robert Gorrell, and Charlton Laird should form a basis for a meaningfully structured composition program. The student should acquire competency in producing rhetorically sound sentences and paragraphs before he is expected to combine these units into clearly structured essays, articles, or narratives. The use of literary models, particularly good models of serious modern expository and narrative writing, are useful as guides in student writing.

While short factual writing, possibly using presently available source books, constitutes a valid and productive exercise, the traditional requirement for the writing of a high school term paper is not productive. Colleges and universities have for some years decried the assignment of such "research papers" at the high school level. Factual writing is far more effectively taught in shorter and more carefully controlled assignments.

The emphasis on expository writing does not preclude, especially for the gifted and creative, some work in the writing of prose fiction, poetry, or drama. This activity must often be done as a supplement to the regular English program. The student writer needs encouragement, sensitive and compassionate criticism, and an incentive to write. It is not necessary, nor even desirable, that creative writing be done only in special classes designed for the purpose. It should be encouraged at all levels, but not required at any.

The composition strand of the program should give attention at all levels to the development of excellence in expression, both written and oral. Fluency in standard English dialect is highly desirable for all students. The academically and linguistically talented student should be encouraged to expand his proficiency to a command of the vocabulary, rhythms, and style of formal English.

METHODOLOGY: Writing is a particularly personal exercise. Ideally, therefore, the method of teaching composition should be as individualized as possible. The teacher's approach should allow for a maximum of flexibility and clear grasp of the ultimate objectives of the program. Methods in teaching composition may reflect virtually as much individuality as the writing process itself, and any methods must be judged pragmatically relative to its success with the largest number of student writers.

## MODEL II: Language Study

OBJECTIVES: The study of language during the prevocational years for most students should focus on developing an understanding of language change, the significance of dialect, and the relationship between language and behavior. For students who do not read and spell well, material based on linguistic studies relative to these areas may well hold considerable hope for remediation.

CONTENT: Language study at the prevocational level should not involve an extensive review of syntax. Study should focus on material dealing with historical and comparative linguistics, on the study of dialects, and on the application of linguistic principles where they apply to composition and to literature.

METHODOLOGY: Because of continuing content changes in high school English suggested by linguists and by professional educators, new methods must be developed to present this material more effectively. Language laboratories, now largely restricted to foreign language study, should be utilized for instruction in the mother tongue, as should sound programmed material for both talented and slow learners and the more extensive use of recordings of speeches, plays, poems, and of historical and regional dialect material.

## MODEL III: A Literature Program

OBJECTIVES: The literature program should provide all students with appropriate and worthwhile reading material, should motivate his reading of this material, and should provide him with an opportunity to discuss it, to write about it, and to evaluate it critically.

CONTENT: A literature program worthy of the name must include in it contemporary literature of proven merit novels, plays, and poems, that comment critically on matters of current concern will hold more interest for the students than will 18th century political satire. The inclusion of such works will require, of necessity, a critical evaluation of works, many of which have been considered standard for a generation.

The literature program should provide for extensive individual reading. Such a program must be sufficiently flexible to challenge the most able and adventuresome, without imposing overwhelming difficulties on the less avid readers. In the choice of books, the student needs guidance rather than prescription, and book lists should suggest rather than require. In such a program, there is great opportunity for the development of individualization and of self-motivation.

METHODOLOGY: Since the study of literature should be an intensely individual intellectual and aesthetic venture, it is important that whatever method or variety of methods a teacher uses, the student should be challenged to develop his own insights and his own critical perceptions.

An excessive resort to lecturing by the teacher largely prevents student involvement and it renders any literature program sterile. There is no aspect of language arts instruction, however, where there is more lecturing and less good teaching.

## MODEL IV: English for the Vocationally Oriented

OBJECTIVES: In the prevocational years, the non-college-bound or vocationally oriented student should not involve a continuing system of syntax. If the student has a dialect problem, this will not solve it. A student rather should understand thoroughly the problem of non-standard dialects, particularly as it applies to himself in society. The cultivation of a sound linguistic attitude as the basis for usage improvement is the key to this program. The level of linguistic virtuosity, however, should be set realistically. It is not realistic to expect a student who, at home, among his associates, and at his work will hear and utilize a non-standard dialect to progress further than a command of basic standard English dialect which he can use when the occasion demands. (It might be here remarked that the classroom is such an occasion.)

The composition program for the non-college-bound and vocationally oriented should be closely tied to the interests and goals of the individual. Elementary logic and an understanding of the basic principles of the rhetoric of the sentence and of the paragraph can be extremely helpful if pursued as a means and not as an end in itself. The student should be taught to do the kind of writing he will have to do vocationally and to do it well.

The reading requirements in such a program should likewise be realistic. The students should be encouraged to read in areas of special interest, and every effort should be made to acquaint the students with great works in such a way that reading deficiencies they may have are minimized. For example, it is not necessary to insist that a problem reader struggle through Hamlet. If the student does not read well and if the purpose of the study of Hamlet is to give an understanding of the play, perhaps a feeling for its structure and language, he should see it on the stage if possible, or view a motion picture or television film of the play, or at the very least listen to recordings. Indeed, these procedures are most beneficial for all students, even the most advanced.

METHODOLOGY: The program must make allowance for student interests and must develop motivational strategies that will bring the total language program within the range of these interests. The program must develop an extremely flexible methodology that can be truly responsive to the varied demands of course content, and student needs and interests.

## PREVOCATIONAL YEARS
(ages 12-17)

### Present Practices - Mathematics

The early prevocational years pose special problems in that mathematics is still required of all students and yet the spread of abilities is greatest at this time. The goals of the program during these 2 years are two-fold: (1) To prepare students with a general mathematical background sufficient to handle ordinary mathematical situations on an adult basis, and (2) To prepare them for further study of mathematics.

The present practices in Nevada are as varied as the problems and goals, and range from trying to solve all the problems of all the students in a school through the use of heterogeneous groups and one textbook, to the adoption of quite a variety of materials and careful grouping of students to better meet their individual needs.

The program for the last 4 years of this period is primarily college-bound and is a most respectable program of this type. Few schools, however, offer enough courses for the non-college-bound during these last 4 years, and most do not have courses suitable for the students who are markedly below grade level. In the large schools, opportunities exist for students to study more advanced mathematics than is usually considered to be high school level.

The most significant expansion of the secondary curriculum within the past few years has been the introduction of courses in computer science or the introduction of computer programming into the regular course offering. The secondary schools of Nevada have responded very well to past mandates to modernize their curriculum. It is hoped that they will as successfully respond to emerging mandates.

## PREVOCATIONAL YEARS

### Emerging Mandates - Mathematics

As the mathematics program reaches into the upper levels, certain of the problems which were apparent at earlier levels continue to be of concern, while yet others are added. The diversity of aims and goals as the students get closer to the time when they must decide whether to go to college or into the world of business or industry is reflected in increased demands for widely varied programs in mathematics. These and other factors dictate the following mandates:

I. **THE JUNIOR HIGH SCHOOL CURRICULUM MUST BE EXPANDED TO SERVE REALISTICALLY THE RANGE OF ABILITIES OF THE STUDENT.**

This may involve courses ranging in difficulty from the fourth grade level to high school level.

II. **IN THE HIGH SCHOOL THERE MUST BE ENOUGH COURSES AVAILABLE TO BE ABLE TO OFFER A WORTHWHILE COURSE TO ALL STUDENTS AT WHATEVER LEVEL THEIR INDIVIDUAL NEEDS OR ABILITY MAY BE.**

The college preparatory mathematics courses in schools are excellent only for the college preparatory students.

**III. THERE MUST BE A RESTATEMENT OF THE "GENERAL MATHEMATICAL" NEEDS OF THE EDUCATED PUBLIC TO INCLUDE MORE ALGEBRA, GEOMETRY, STATISTICS, AND RELATED SUBJECTS THAT ARE NECESSARY FOR AN EDUCATED FUNCTIONING ADULT.**

As our society becomes increasingly technological, our citizenry needs broader literacy in mathematics.

**IV. SEPARATE MATHEMATICAL TOPICS MUST BE INTEGRATED UNDER THE BROADER CONCEPTS THAT RELATE TO ALL AREAS.**

School mathematics must reflect the emphasis on underlying structure that has characterized modern development of mathematics.

**V. RECOGNIZING THAT THERE ARE MORE USERS OF MATHEMATICS THAN PRODUCERS, THERE MUST BE MORE INTUITIVE AND REALISTIC APPROACHES TO THE TEACHING OF MATHEMATICS TO PROMOTE BETTER DAILY UTILIZATION OF MATHEMATICAL SKILLS AND CONCEPTS.**

This is not to be considered in conflict with the approach that some mathematics should be studied for its own sake, but is rather a more honest picture of how contemporary pure mathematics is created and used.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Mathematics

MODEL

OBJECTIVES: By the time the students have reached the prevocational years, individual differences vary the levels of achievement, and the wide range of future vocational aspirations make it difficult, if not unwise, to generalize the objectives of the mathematics program for all students. Rather, the general objectives become subgroup objectives or even individual objectives.

One common objective of the program could be to raise the level of mathematical literacy of as many students as possible to a level at which they can function as effective citizens in an increasingly technological society. This implies not merely technical proficiency in specific mathematical skills, but a basic understanding of mathematics which will enable them to learn mathematics after they leave school. Another general objective of the prevocational years mathematics program is to provide each student who has achieved the first objectives with learning opportunities relevant to his abilities and interests whether he be brilliant or average, college-bound or not college-bound.

CONTENT: If the above objectives are accepted, it must be recognized that a broad content offering must be available in the schools to meet the needs of the students. The content for the able college-bound student has been well developed during the past decade. National curricula groups such as FNSG and UCICSN, acting on recommendations of other national groups such as NCTN and MAA, have, through massive efforts, redefined and rewritten the curriculum for the prevocational college-bound student. Practically all available curricula materials reflect these content improvements. Improved preservice preparation, NSF institutes, and other in-service opportunities have produced teachers trained to teach this content, although they are in short supply. The Nevada high school course of study--mathematics, 1966--is recommended as a model for the curriculum for the college-bound students. These course outlines do not meet the needs of a great number of other students.

National groups are beginning to work on sound programs for non-college-bound students, but, at this time, programs to use as models have not yet been developed. The schools are called upon to aid in this development by experimenting with various course offerings. Present "general mathematics" courses are not very effective, and courses such as business arithmetic seem to be designed to improve general mathematical backgrounds rather than to relate and apply mathematics to the vocational area.

An ideal program would be developed by first defining the expected outcomes of a general mathematics program, by constructing such courses, and by providing branching possibilities for the students after they have achieved the general goals.

All mathematics courses should relate to the knowledge and use of computers, since their impact is growing and will doubtlessly be permanent.

METHODS: The organizational structure of the schools should be such that students could be offered learning experiences related to their needs and abilities. At this level, the range of achievement is great. Consequently, the structure should provide for the different learning rates of the students in achieving the general mathematical objectives and should provide branching opportunities for them when these objectives have been achieved.

Discovery-activity methods of instruction are as valid and effective at this level as they are at earlier levels. It is hoped that a breakthrough on methods of motivating more students in mathematics will soon occur. The use of a computer in mathematics courses appears promising in this direction.

## PREVOCATIONAL YEARS

### Present Practices - Science

Present practices in science education in the prevocational years, particularly in junior high schools, usually involves very broad programs designated in most existing courses of study as general science. The general science course is designed to be exploratory, consistent with the major aim of the junior high school philosophy. Unfortunately, however, these general courses do not provide the necessary exploratory and inquiry-centered learning activities.

The mode of presentation is primarily by lecture with few demonstrations and even fewer laboratory experiences. This limited method of conducting science classes reflects inadequate provision for student participation and inadequate teacher preparation in the field of science education. In this respect there is little difference in programs between small and large schools.

Course offerings in the senior high schools presently include physical science, biology, botany, chemistry, earth science, and physics. Limited emphasis is given to aerospace science, conservation, and atomic science. In most small high schools and in some larger high schools, these courses are still taught as lecture subjects with few laboratories. A few schools do offer student participation laboratories in biology, chemistry, and physics. Typically a program of this type offers two laboratory periods a week and additional laboratory time as the student requires it.

A few schools have moved toward programs as suggested by national science curriculum studies. These studies recommend more comprehensive student participation in a laboratory setting structured for the student to investigate and to inquire into the processes of science.

## PREVOCATIONAL YEARS

### Emerging Mandates - Science

The emerging mandates for prevocational science programs deal with curriculum design, course content, and basic teaching philosophy.

I. **STUDENTS IN SCIENCE MUST BE AFFORDED THE OPPORTUNITY TO WORK WITH MODERN SCIENCE MATERIALS AND EQUIPMENT UNDER THE GUIDANCE OF ADEQUATELY PREPARED TEACHERS.**

The lack of laboratory experience and the assignment of inadequately prepared teachers to teach science courses are detrimental. The laboratory offers the best learning situation presently available, and the well prepared teacher offers the skilled guidance necessary for its optimum use.

II. **PREVOCATIONAL ACTIVITIES IN SCIENCE MUST BE BUILT UPON THOSE EXPERIENCES AND CONCEPTS STUDENTS HAVE ALREADY ACQUIRED IN THE ELEMENTARY SCHOOL AND ELSEWHERE.**

Obviously, curriculum designers must also take into account the student's exposure to science through television, museums, and science-oriented reading materials. Indeed, the total prevocational science program must be articulated with science material presented at earlier levels so that there is a sense of related sequence in the total program.

III. PREVOCATIONAL COURSES MUST UTILIZE THE NATIONAL FINDINGS RELATING TO NEW PROGRAMS IN LIFE SCIENCE, EARTH SCIENCE, AND PHYSICAL SCIENCE.

It is quite apparent that the general science courses now offered at the prevocational level are not relating sufficient information to assure success for either a college-bound or non-college-bound student. Therefore, an updating of curriculum is essential to provide a sequence and to make science teaching more useful to students.

IV. SPECIAL EFFORT MUST BE MADE TO EXPAND SCIENCE PROGRAMS, AND PARTICULARLY LABORATORY PROGRAMS AND FACILITIES IN THE SMALLER SCHOOLS.

Most of the small schools in the State need additional laboratory facilities. Without a laboratory, the teacher is limited to lecturing and finds it difficult to initiate a student-oriented discovery or inquiry approach to learning.

V. BASIC TEACHER EDUCATION PROGRAMS MUST BE STRENGTHENED AND IN-SERVICE PROGRAMS MUST BE PROVIDED TO KEEP TEACHERS INFORMED OF RECENT DEVELOPMENTS IN SUBJECT MATTER AND THE METHODOLOGY.

Rapid changes in science make it most difficult for the teacher to remain well informed. Student awareness of and sensitivity to new and exciting developments provides a constant challenge which can best be met by improved initial training and a constant renewal and updating process.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Science

### MODEL

OBJECTIVES: The science program in the prevocational years will be designed to utilize new national findings in science and to develop proper articulation with the middle school years programs.

CONTENT: National trends in life science, earth science, and physical science will be inculcated in the prevocational science curricula. Concepts of science and individual science enterprise will be sequentially developed through the science curriculum. The curriculum for science will have as its base those skills and concepts developed in the middle school years.

METHODOLOGY: Careful planning will take place to provide the necessary articulation with earlier years science education resulting ultimately in a K through 12 sequence for science. Administrative support will be generated. Adjustment to new trends in science will be accomplished through in-service and preservice training for teachers. More adequate facilities, materials, and media will be a necessary feature of new science programs.

## PREVOCATIONAL YEARS

### Present Practices - Social Studies

Required and elective courses in social studies are presented in somewhat varied patterns in the Nevada schools. Nevada history and geography in the seventh grade, and Nevada and United States history is now offered by most Nevada schools in grades five, eight, and eleven, and is the only social studies area that is presented at three academic levels. Courses in American history and government are state requirements at the secondary level and are usually scheduled during the eleventh and twelfth grades. Elective studies in world geography and history are generally offered in the ninth and tenth grades. Such additional electives as economics, sociology, and world problems may also appear in the high school curriculum.

For the most part, the teaching methods are consistently traditional, eliciting from the students factual information based upon assigned readings and lectures. There are, however, a few programs that reflect the latest thinking in social studies education, including inquiry based teaching strategies and the innovative utilization of the latest media; but this is due primarily to the enthusiasm and initiative of the individual teacher and is not necessarily inherent in the total social studies program.

## PREVOCATIONAL YEARS

### Emerging Mandates - Social Studies

I. THE PREVOCATIONAL YEARS MUST OFFER THE STUDENT MANY OPPORTUNITIES FOR PROBLEM SOLVING.

It is during this period that the student can apply meaningfully the several previously acquired inquiry skills in social studies concepts relevant to him. Multisource inquiry assignments in areas of current concern--world political tensions, racial problems, violent and civil disorder--can be especially useful.

II. THE PREVOCATIONAL YEARS MUST ENCOMPASS ALL TEACHING STRATEGIES FROM EXPOSITION TO DISCOVERY.

The use of media from recordings and transparencies to the most sophisticated television resources, should reinforce these strategies. These teaching strategies require profound changes in classroom philosophy and atmosphere, but without altered teaching strategies there can be no constructive changes in the program.

III. DURING THESE YEARS A CONSCIOUS EFFORT MUST BE MADE TO HELP STUDENTS THINK BEYOND THE CONFINES OF THEIR SCHOOL, TOWN, AND STATE, AND TO DEVELOP A GLOBAL FRAME OF REFERENCE THROUGH THEIR SOCIAL STUDIES WORK.

Many influences, from urbanization and the decentralization of industry to improved transportation facilities, have made the student of today and the adult of tomorrow a highly mobile individual. Moreover, his movements will not be restricted in any significant degree by physical barriers or by natural boundaries. Hence, awareness of the world and an understanding of its problems is more critical for the individual today than ever before.

IV. SOLVING PROBLEMS FUNDAMENTAL TO MAN'S SURVIVAL MUST CONSTITUTE AN IMPORTANT PART OF THE EDUCATION OF ALL CITIZENS. POPULATION GROWTH, URBANIZATION, AND INCREASED INDUSTRIALIZATION ARE PLACING GREAT DEMANDS ON THE WORLD'S ESSENTIAL RESOURCES AND ARE ALSO CONTRIBUTING TO SERIOUS PROBLEMS OF ENVIRONMENTAL CONTAMINATION.

The urbanization of society, the most dominant influence on our culture today, has contributed to instability in family life and to a lack of unity in our urban community. These problems need careful study, and the social studies program must provide an opportunity for such work.

V. GREATER EMPHASIS MUST BE PLACED ON THE HUMANITIES--LITERATURE, MUSIC, AND THE FINE ARTS--BECAUSE OF THEIR CONTRIBUTION TO THE UNDERSTANDING OF MAN AS MAN.

The humanities program can best be developed through team efforts among the social studies department, the English department, and the fine arts department. Humanities studies offer an excellent opportunity to correlate and to integrate the knowledge of several complementary disciplines.

VI. CONSIDERATION MUST BE GIVEN TO SOCIAL STUDIES COURSES THAT CORRELATE RELATED BODIES OF KNOWLEDGE AND SERVE AS CAPSTONES IN THE EDUCATIONAL STRUCTURE.

Semester courses in economics, sociology, history, and psychology can provide flexibility and depth to general education and can give point and sequence to the social studies program.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Social Studies

### MODEL I: The California Program

OBJECTIVES: In the early part of grades seven through nine, the processes of inquiry in the analytic mode are brought to full development and self-consciousness. In particular, the student will gain greater control over the difficult analytic process of behavioral definition as he conceptualizes complex patterns of behavior. Early in these grades, the integrative mode becomes important, and through the middle topics the various processes of this mode are elaborated and the analytic and integrative modes are used in conjunction with each other. In the last half of these years the policy mode is introduced and twice used in the full range of its processes. Thus, by the end of grade nine, the full array of inquiry processes will have been developed, and all three of the modes will have been practiced in relation to each other.

CONTENT: Conceptual development in grades seven through nine is focused on major social institutions, selected in terms of their relevance to problems of the world in which today's students will be living as citizens. Political human perspective and in relation to each other is part of the study, occupying about two-thirds of these three years, culminating in a study of the contemporary American and Soviet systems and in a policy study of the problem of modernization in the underdeveloped world. The final third of these years is devoted to a study of the urban environment, culminating in a policy study of urban problems and urban improvement.

Grades ten and eleven are devoted wholly to an inquiry process only casually utilized previously, the process of historical integration in the integrative mode. In the process of historical integration the student draws upon the whole range of analytic and integrative processes, reinforcing his command of them as he establishes the interrelations of social phenomena of our time. The entire array of social science concepts is similarly brought to bear in this study. But the primary concepts in this integrative mode are specific to the culture being studied and thus are inseparable from the settings. In the first half of these studies the focus is on major aspects of the development of the United States; the focus then shifts to major aspects in the development of the modern (mainly western) world; and a final unit of study analyzes in depth the history of a major non-western culture. These studies are arranged by topics as follows:

Topic 1: How did the United States come to be the way it is, and how is it changing?

Topic 2: How much do national groupings and conflicts affect the life of man?

Topic 3: How has India maintained its cultural unity over such a long period and such a diversity of peoples?

Inquiry processes and basic concepts need not be discussed further in connection with the separate topics and subtopics, and the following table applies to the entire two years of study:

METHODOLOGY: IN THE FIRST HALF OF GRADE TWELVE BOTH ANALYTIC AND INTEGRATIVE PROCESSES ARE USED AS STUDENTS STUDY DECISION-MAKING IN THE PRESENT-DAY UNITED STATES. This unit of study concludes with a policy consideration of the American decision-making systems and of the citizen's relation to decision-making.

The second half of grade twelve is reserved for capstone elective courses in the social sciences and history. These courses, relatively specialized and conducted at a relatively sophisticated level, are designed to meet the special interests of different student populations and to capitalize on the special interests and competencies of different teaching staffs.

One semester of the senior year should be set aside for a series of courses from which all students must select at least one. These capstone courses are designed to enable a student to probe more deeply into the mode of inquiry of a particular discipline or to pursue a subject of interest in greater depth. Capstone courses also serve to draw upon the unique professional competence of the teaching staffs of individual schools, and for this reason the type of offerings would vary considerably.

One semester of disciplinary courses may be offered in aspects of anthropology, social psychology, urban geography, sociology, economics, political science and history. Other courses may be focused on areas such as Africa and world affairs or Asian studies; advanced courses in American studies may be offered on special problems such as urbanization or poverty. There might even be room for less orthodox course offerings such as "The Impact of the Military-Industrial Complex on American Life," or "Islam, Buddhism, and Hinduism in Comparative Settings." Careful attention must be given to the nature, interests, and abilities of the student population and the teaching staff of a school before course offerings are decided upon. Justification for courses should be based on the inherent enlightenment to be gained from the material and processes to be engaged in, and not primarily on the extent to which each course may "help prepare" a student for college. In general, capstone courses would have to rely on a wide variety of instructional materials, and may exclude the textbook altogether. Such courses do place an enormous burden on individual teachers, and it would be hoped that district resources and staff assistance would be generously available.

## MODEL II: The Wisconsin Program

OBJECTIVES: The Wisconsin social studies program at the prevocational level stresses value clarification and the development of attitudes that lead to a willingness to participate in school and wider community actions, along with a respect for inquiry.

CONTENT: During the prevocational years more emphasis is placed upon concept and generalization proof and usage. Inquiry skills play an increasingly important role in the prevocational years, with particular emphasis upon formulating questions and hypotheses, testing hypotheses, and formulating models.

The content areas emphasized in the Wisconsin curriculum during these years stress in-depth studies of historical and contemporary problems. The seventh grade provides the student with the opportunity to acquire some understandings of the investigative modes used by the various social science disciplines. The eighth and ninth grades provide the student with an opportunity to study western and non-western areas of the world in both the historical and contemporary scenes. The tenth and eleventh grades offer the student an excellent opportunity for an in-depth study of the American scene, both historical and contemporary.

The scope of the program is indicated by the following content statement for the several levels:

Grade Nine - Area studies (the non-western world)
Grade Ten - United States studies to about 1896
Grade Eleven - United States studies from about 1896
Grade Twelve - Selected courses in the social sciences (economics, sociology, history, geography, anthropology, political science, psychology, and the humanities)

One semester social studies courses are recommended for the twelfth grade. These disciplinary courses may be offered in economics, sociology, urban geography, social psychology, political science, anthropology, history, and humanities. The germane focus of the senior social science electives is individual and societal problem investigation.

METHODOLOGY: Those methods tried during the early and middle school years should be applied at appropriately sophisticated levels during the prevocational years. The implications of these methods particularly as they relate to curricula change in the social studies are broad indeed. They affect all aspects of curriculum from the physical environment to varied teaching strategies to student deployment. Implementation schemes related to teacher training in contemporary methods place great emphasis upon the in-service work and upon the changing emphasis in preservice instruction. The Wisconsin State Department of Public Instruction has also developed significant working papers on inquiry skills, value and attitudinal attainment, and evaluation. All these considerations brought to bear upon the mode of presentation in the social studies curriculum should resolve to the designing of more flexible and more effective methods of presenting material and developing and refining students' skills.

Implications of curricular change in the social studies are broad indeed, and consideration must be given to all aspects of curriculum from the physical environment to teaching strategies to student deployment.

## PREVOCATIONAL YEARS
(ages 12-17)

### Present Practices - Foreign Language

There are twenty-two high schools in the State of Nevada and twenty combined junior-senior high schools. Of this number, twenty of the high schools and thirteen of the combined junior-senior high schools offer foreign languages. This would indicate that the combined junior-senior high schools, most of which are located in rural areas, offer less language instruction than those high schools in the urban areas. Of the thirteen junior-senior high school combinations, eleven offer Spanish, five offer French, and two offer German.

Among the twenty-two high schools, most of which are located in urban areas, twenty offer foreign languages. Of these, twenty offer Spanish, fourteen offer French, fourteen offer German, six offer Latin, one offers Italian, and one Russian. This would indicate that most of the larger high schools offer at least two languages, and many a third or fourth.

The larger high schools offer three or four levels of instruction of the foreign language. The smaller high schools or combined high schools in general offer one or two years of one foreign language.

The materials used at the high school level are frequently consistent with latest directions in foreign language instruction. However, as at the junior high school level, some teachers are not properly trained to implement the instructional program as developed with these materials.

There are few foreign language enrichment programs of any kind in the State of Nevada. However, some individual teachers conduct tours to Mexico and to Europe during the course of the school year or summer. Attempts have been made at other enrichment activities, but these have met with limited success.

## PREVOCATIONAL YEARS

### Emerging Mandates - Foreign Language

I. **EVERY HIGH SCHOOL OR COMBINED HIGH SCHOOL IN NEVADA MUST OFFER AT LEAST ONE SUSTAINED FOREIGN LANGUAGE SEQUENCE IN AT LEAST ONE LANGUAGE.**

Larger high schools must offer such sequences in at least three languages and possibly in four or five, while smaller high schools should limit their offerings to sequences in one or two languages most appropriate to local needs and interest.

II. **PROVISION MUST BE MADE FOR ARTICULATION OF THE PROGRAM FROM JUNIOR HIGH SCHOOL THROUGH THE SENIOR HIGH SCHOOL.**

In this way, students may be scheduled in a program sequence suited to their facility in each foreign language. Under no circumstances should a student be placed in a beginning course at the high school level after having satisfactorily completed at least one year at the junior high school level.

III. **THE PROGRAM MUST BE DESIGNED TO DEVELOP, STEP BY STEP AND IN SEQUENCE, FUNDAMENTAL SKILLS IN LISTENING AND UNDERSTANDING, SPEAKING, READING, AND WRITING THE LANGUAGE.**

To this end the program must be carefully structured and must be presented sequentially.

IV. **THE PROGRAM MUST MAKE USE OF MODERN METHODS, MEDIA, AND TECHNIQUES.**

Audiovisual materials such as filmstrips and tape recordings are helpful and lend themselves to a variety of uses.

V. **ENRICHMENT PROGRAMS IN FOREIGN LANGUAGE MUST BE EVALUATED AND IMPLEMENTED WHEREVER FEASIBLE.**

These programs, aimed at intercultural understanding, offer a new dimension to the study of foreign language and give to the program a meaning beyond the skill acquisition itself. These include such activities as: (1) Foreign travel, (2) Guest Lectures on foreign culture or from foreign countries, (3) Student exchange with foreign students, (4) Dancing, singing, plays, etc., (5) Language camps, and (6) Language carnivals, competition, etc.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Foreign Language

MODEL

OBJECTIVES: The program for the prevocational years will be designed to provide the necessary articulation from junior to senior high school. It will emphasize listening and understanding, teaching, reading, and writing in that sequence. It will also enphasize enrichment opportunities, and a cultural understanding of other peoples and nations.

CONTENT: Content and materials will be consistent with the fundamental skills method stressing all four areas in proper sequence. Subject offerings will be articulated with the junior high school offerings.

METHODOLOGY: Students will be able to enter the program during any school year up to and including the tenth grade. Teachers will be well trained and able to demonstrate efficiency in the four skills and the methodology and techniques necessary to develop these skills in their students. Provision will be made for enrichment activities such as language festivals, foreign travel, movies, language camps, songs, dances, and cultural involvement. Scholarships will be increased in the area of foreign language proficiency for students who are able to demonstrate such proficiencies. Materials will be consistent with the fundamental skills method and adequate reinforcement equipment and materials should be provided in every combination junior-senior high school or high school. This equipment and materials should be well planned according to any of the particular programs and extreme caution will be given to the purchase of materials or equipment which will not adequately provide for the needs of students.

## PREVOCATIONAL YEARS

### Present Practices - Physical Education

Physical education in Nevada officially begins in the junior high school in our larger districts. Likewise, the seventh, eighth, and ninth grades in the smaller communities have typical physical education programs involving touch football, basketball, and softball, with some activities such as dodge ball, volleyball, and free play included between major sports season.

Most high schools have generally satisfactory programs in traditional physical education. Facilities are usually adequate and the programs are meaningful. But these programs cannot be described as comprehensive because unrelated activities frequently are allowed to fragment their continuity. For example, students are excused from physical education for a variety of reasons such as ROTC, marching band, and other extracurricular activities.

Physical education at this level generally appeals to those students who have developed skills in the various phases of it. Little is done to reach the student who needs physical education the most, but who believes he does not.

The larger cities, in particular, have strong physical education courses where students receive a complete and balanced program; but, unfortunately, the teacher is often without any defined guidelines or criteria. To be more explicit, the teacher is the program, and if that teacher happens to leave a school, the program leaves with him.

## PREVOCATIONAL YEARS

### Emerging Mandates - Physical Education

**I. GOLF, TENNIS, SWIMMING, AND OTHER ACTIVITIES MUST BE INCLUDED IN THE PREVOCATIONAL PHYSICAL EDUCATION PROGRAM.**

This teaching of lifetime sports should be the high point of every student's physical education experience. Such a program will require retooling facilities and equipment, redeveloping programs, and retraining teachers both in skills and in philosophies. Such a program may present the only opportunity for some students to learn skills that will enhance their lives after they leave school. Such activities must be based upon the needs, abilities, experiences, and interests of those participating.

**II. WHILE THE PROGRAM EMPHASIZES PROCEDURES DESIGNED TO DEVELOP SKILLS FOR LEISURE TIME ACTIVITIES, PARTICIPATION IN MORE TRADITIONAL COMPETITIVE ACTIVITIES MUST CONTINUE TO BE EMPHASIZED.**

Intramural and extramural competitive sports activities must be a part of the physical education program during the prevocational years, for these programs embody long proven values.

237/238

## PREVOCATIONAL YEARS

### Recommended Exemplars - Physical Education

### MODEL

OBJECTIVES: The following objectives will be evident in an exemplary program:

1. The contribution to the physical and organic growth and development of the child and the improvement of body function and body stability.
2. The contribution to the social traits and qualities that go to make up the good citizen and the development of sound moral ideas through intensive participation under proper leadership.
3. The contribution to the psychological development of the child, including satisfactions and emotional stability resulting from stimulating experiences physically and socially.
4. The contribution to the development of safety skills that increase the individual's capacity for protection in emergencies, both in handling himself and in assisting others.
5. The contribution to the development of recreational skills that have a distinct function as hobbies for leisure time hours, both during school and in after school life.*

The ultimate aim of physical education is to develop and educate the individual through the medium of wholesome and interesting physical activities, so that he will realize his maximum capabilities--both physically and mentally.

CONTENT: An exemplary program, then, must meet the needs of children during the prevocational years in order to develop their interests and abilities in leisure time activities. It is recommended that in connection with all activities, basic instruction and guidance be given in fundamental body mechanics. When developing an activity at the prevocational level, repetition is very important, and a unit should be carried out for about six weeks. Students should be given a choice of selecting activities which will meet these various body movement needs. A program will be designed with some of the following activities included:

1. Apparatus
2. Archery
3. Badminton
4. Boxing
5. Diving
6. Fencing
7. Folk dancing

15. Team games (when needed) (basketball, volleyball, soccer, speedball, baseball, touch football, hockey, lacrosse, American football)
16. Specialties (if needed) (winter activities, outdoor activities, etc.)

---

*The Physical Education Curriculum (A National Program), by William Ralph LaPorte, Edited by John M. Cooper.

8. Golf
9. Handball
10. Life saving
11. Modern dance (creative-interpretive)
12. Social dancing
13. Tennis
14. Wrestling
17. Adapted activities for subnormal cases
18. Body mechanics and body building
19. Social (recreational) games
20. Swimming
21. Squash (or squash racquets)
22. Tumbling

It is important to realize that involvement in these activities is exploratory and children should not be required to have any exercise in them at this time. Physical education in the prevocational years will be exploratory in content. The model that must be followed for the prevocational years is one of selection, in which students are given a broad exposure to a variety of activities involving fundamental movements, rhythms, games, relays, and self-testing activities. Important at this level also is elementary instruction in a wide variety of individual or dual games, with particular emphasis on "carry-over purposes." A program such as this will provide the average student an adequate opportunity for physical, mental, and social development with preparation for lifelong interests and sport hobbies. Flexibility in this program is essential, and activities should be adapted whereby the slow learner, the handicapped, and the gifted will be able to move and progress at their own rates. If children have begun and continued to progress with basic activities, they will then develop a desire for more interesting and challenging activities in the prevocational years, progressing to a small degree of specialization.

Depending upon facilities, equipment, and weather conditions in each specific locale, an exemplary program in physical education would involve highly organized physical fitness and sports programs. Motor activities should be carefully selected to meet the mandates at this level. Provisions within this model program for satisfying the student's keen desires for competition must be carefully directed. During the latter part of the prevocational years, students begin to develop and perform at a higher level; thereby activities must be designed so all students have an opportunity to meet the state mandates.

METHODOLOGY: Selection and training of teachers is important. Preferably only teachers who have had their major work in physical education should be employed; however, under emergency situations teachers who do not have the necessary preparation could be used, providing arrangements are made for them to take special courses in the areas where they will be responsible.

All children should have an opportunity to participate in a wide range of activities, some of which are listed below:

| CORE PROGRAM | WEEKS FOR BOYS | WEEKS FOR GIRLS |
|---|---|---|
| Basketball (boys) | 6 | -- |
| Basketball (girls) | -- | 6 |
| Gymnastics | 12 | 12 |
| Rhythms | 12 | 18 |
| Softball | 6 | 6 |
| Soccer - Speedball | 6 | -- |
| Swimming and Diving | 12 | 12 |
| Track and Field | 6 | -- |
| Tumbling - free exercise | 12 | 12 |
| Volleyball | 6 | 6 |
| Field hockey | -- | 6 |
|  | 78 | 78 |

| | | |
|---|---|---|
| *Electives | *30 | *30 |
| | 108 | 108 |
| Elective Program: | 30 | 30 |

Badminton, Boating, Golf, Handball,
Riding, Skating, Skiing, Tennis,
Wrestling, Adapted P.E., Social
Dance, Folk Dance, Square Dance

It is understood that this schedule is for classroom purposes to be supplemented by an opportunity for extensive intramural participation. Elective programs are to be selected according to available facilities devoting from three to six weeks to each activity.

If carefully planned teaching procedures are followed as described above, and all children are well informed as to the advantages and attractive aspects of the various activities presented, very few would remain uninterested. It is well to stress the importance of developing a well rounded physical personality by training oneself in a variety of activity skills.

## PREVOCATIONAL YEARS

### Present Practices - Health Education

Present practices of health instruction in Nevada range widely in quality. Two small high schools, four medium high schools, and nine large high schools currently offer courses in health. Most programs are taught by the physical education teachers or in elective health courses by the home economics teachers. Present efforts are not developing patterns of learning in which clearcut objectives are discernible. Some schools do have health instructors who generally follow a prescribed text and who teach some broad concepts; however, this is the exception and not the rule.

## PREVOCATIONAL YEARS

### Emerging Mandates - Health Education

Health education programs in the prevocational years must teach the student the importance of being well and keeping himself well. Toward this end, the following mandates are directed:

I. **ALL OF THE MAJOR AREAS OF THE HEALTH SPECTRUM MUST BE COVERED.**

The vital issues of health information should not be ommitted from the health curriculum because of expediency. With all the facts and statistics concerning the hazards of smoking, drinking, drugs, and the disregard for good health habits, educators can no longer be apathetic in an honest approach to these topics. Health teachers must have the courage to approach controversial subjects and must face these areas with conviction based upon factual information, present events, and their own experiences.

II. **HEALTH PROGRAMS MUST BREAK AWAY FROM TRADITIONAL TEACHING OF HEALTH AND MOVE TOWARD TEACHING ANATOMY AND PHYSIOLOGY.**

Methods to implement this approach should incorporate meaningful student participation and inquiry techniques.

III. **IN THE HIGH SCHOOLS, HEALTH EDUCATION PROGRAMS MUST DEAL CONSTRUCTIVELY WITH HUMAN SEXUALITY AND MUST REINFORCE SOUND AND HEALTHY ATTITUDES TOWARDS SEX.**

The health educator must approach these areas sensibly and modestly, realizing that no single effort can solve all problems. The health educator must exert effort to explore and deal realistically with such problems as disease, pregnancy, homosexuality, and the like.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Health Education

MODEL

OBJECTIVES: The goal of health education during the prevocational years is to help each individual view health as a way of life for the betterment of family, community, and self.

CONTENT: The health education program should be centered around basic concepts which are fundamental to health and which provide substance and structure for the subject area of health education.

The content of the course might include varied topics for discussion which are designed for the interaction of all groups. Representative of such topics are health problems and community relations, family planning and human sexuality, and the physical aspects of health. The content of the health education course must be considered an important entity in essence; it must never be presented as a superficial biology, anatomy, or physiology course, nor should it be a classroom extension of physical education.

METHODOLOGY: In developing a conceptual approach to health education at the prevocational level, a teacher must realize the value of interaction and the decision-making emanating from the group. Through decision-making, each individual is encouraged to reason through lifelike situations to solve problems particularly as they relate to his own behavior patterns.

It is particularly advantageous to use personnel from the school staff for supplementary teaching in the various areas. For example, the social studies teacher for health problems and community relations and the home economics teacher for family planning and human sexuality. This approach to health teaching is one in which experts and resource people are used to advantage.

It is likewise advantageous under certain circumstances to develop a team teaching approach. Team members should be chosen with care and should be willing to work as a team. The necessary material that is to be presented to this group does not change, and controversial subjects should be handled by the team truthfully and factually. Resource people should be brought in to supplement the team whenever possible.

## PREVOCATIONAL YEARS

### Present Practices - Music Education

In Nevada, one general music course is required during the seventh and eighth grades, although this requirement is observed in the breach almost as frequently as in practice. Otherwise, the present practice in the prevocational years is to consider junior and senior high school music instruction in terms of elective performance groups in the band, choral and string areas, possibly together with an occasional elective course in general music, music appreciation, music theory or the like.

## PREVOCATIONAL YEARS

### Emerging Mandates - Music Education

I. **MUSIC EDUCATION IN NEVADA MUST BE BROUGHT UP TO NATIONAL MINIMAL NORMS.**

In the course of recent six-year study of music in the curriculum (Music in General Education, 1965), the MENC Committee on Music in General Education sought to answer the question, "What minimum specific goals does it seem reasonable to attempt to set for music in the twelve or thirteen years of the general school experiences?" In abbreviated form, the Committee's description of the desirable musical attributes to the generally educated student as he graduates from high school are as follows:

SKILLS

I. He will have skill in listening to music. The generally educated person listens with a purpose...

II. He will be able to sing. The generally educated person is articulate. He uses his voice confidently in speech and song...

III. He will be able to express himself on a musical instrument. A generally educated person is curious. He is interested in how instrumental music is produced and willing to try his hand at making music, if only at an elementary level with a percussion instrument, a recorder, or a "social-type" instrument...

IV. He will be able to interpret musical notation. The generally educated person is literate. He understands arithmetical and musical symbols...

UNDERSTANDINGS

V. He will understand the importance of design in music. The generally educated person understands the structure of the various disciplines.

VI. He will relate music to man's historical development. The generally educated person has historical perspective...He relates this knowledge to his understanding of man's social and political development...

VII. *He will understand the relationships existing between music and other areas of human endeavor*. The generally educated person integrates his knowledge...

VIII. *He will understand the place of music in contemporary society*. The generally educated person is aware of his environment...

### ATTITUDES

IX. *He will value music as a means of self-expression*. A generally educated person has developed outlets for his emotions. He recognizes music not only as a source of satisfactions because of its filling his desire for beauty, but also because of the unique way in which it expresses man's feelings...

X. *He will desire to continue his musical experiences*. The generally educated person continues to grow...

XI. *He will discriminate with respect to music*. The generally educated person has good taste...

## II. THE PROGRAM MUST ELIMINATE THE PRESENT CONFUSION BETWEEN EDUCATION AND PERFORMANCE.

According to MENC Executive Secretary Charles L. Gary, in the *Curriculum Handbook for School Administrators* (1967), "the development of significant musical learnings has more and more become the major goal of music programs in recent years. School experiences in music which seek merely to acquaint students with standard works of music literature or to develop performing skills are now viewed as inadequate." In other words, no matter how important musical activities and performance groups are *in* the music curriculum, by themselves they do not *form* the curriculum. A growing emphasis is centering on provision of meaningful (from a general education point of view) musical offerings for *all* students, rather than for the comparatively few who have a special interest or talent in the area of music performance.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Music Education

### MODEL I: General Music

OBJECTIVES: The music program at the prevocational level should provide every student with meaningful involvement in a general music course that "constantly illuminates the nature of music as an art, involves participation and performance, and teaches skills, understandings, and attitudes." The Tanglewood Symposium Report, 1967, further points out that "Because of existing academic pressures, college entrance requirements, and rigid scheduling, less than 20 percent of high school students in the United States are engaged in the systematic study of music as an art. The need for aesthetic experience is a basic characteristic of human life that education at every level is obliged to meet. An exemplary music program should provide the opportunity for such experience at both the junior and senior high school levels.

CONTENT: A meaningful program in music education should include courses in general music and related courses in the humanities or the allied arts for all students. Such courses as theory, harmony, and the like should be available for those with interest and talent.

The exemplary program will develop such an educational program without sacrificing or curtailing performance programs. It is recognized that performance as such has always been as important in public school music in Nevada. However, a new role for school performing organizations is recommended by Charles L. Gary in the Curriculum Handbook for School Administrators, 1967:

> "Rehearsal periods of school choruses, orchestras, bands, and ensembles should be conducted toward educational ends with necessary emphasis upon the content, structure, and style of the music being performed. The organizations become laboratories where the design and meaning of the music may be analyzed and demonstrated. Some of the performances of the group should also be thought of as a means of bringing opportunity for the development of technical, manipulative, and reading skills by the performers."

METHODOLOGY: A program of musical education as well as musical performance will require new methods and a new preparation. Provision must be made for small groups and individual instruction, for small group rehearsal, and for independent listening.

In order to create and to teach such programs, it will be necessary to reconsider the quality and type of both the preteaching and the in-service education of the music teacher. A new type of scholar-musician-teacher must be developed in order to handle adequately the rigorous requirements of, for example, general music teaching. Such programs require musicians devoted to teaching and teachers devoted to music.

### MODEL II: Choral Program

OBJECTIVES: The objectives of the choral music program include those cited for the choral program for the middle school years. The emphasis at this level is largely in developing a mature response from students relative to all their learning experiences.

CONTENT: The content reflects the maturing abilities of students. The added experience and the more mature vocal equipment makes the introduction of more difficult material such as four-part contrapuntal works of the renaissance and baroque periods feasible and desirable.

METHODOLOGY: Increased attention span and more fully developed vocal equipment enables student choral groups at this level to vocalize more extensively, and to read and memorize with greater facility. Class and rehearsal techniques should adjust to this and the program can be intensified profitably. The vocal potential of such choral groups is seldom fully realized.

## MODEL III: An Instrumental Program (Band and Strings)

OBJECTIVES: The instrumental program is designed to offer sequential instruction and performance opportunity for student instrumentalists. It is intended to develop the student's general musical growth both as a performer and a listener.

CONTENT: Since the program is placed late in a sequence, the content including theory, techniques, and general musicianship is more sophisticated than at earlier levels. The opportunity to study and perform a variety of works composed for large and small ensembles should be provided.

METHODOLOGY: Increasing musical competence and general maturity dictates adjustment of method to fit changing needs. The level of competency for teachers-musicians during these prevocational years must be high. Their efforts need extensive logistical support in terms of adequate rehearsal plus performance, facilities, provision of instruments in appropriate numbers plus quality, and the scheduling of sufficient rehearsal plus class time.

## PREVOCATIONAL YEARS

### Present Practices - Art

The use of professionally trained art instructors and the availability of room, equipment, and material for a meaningful art program is more common at the prevocational level than at any of the previous school levels. Most of the large high schools and some of the small high schools employ adequately trained art instructors, although the instructor may not teach art exclusively. The adequacy of space allotted to art in the several schools varies widely. Most of the newer schools have planned for at least a minimal program in art and have allotted space accordingly. This is, of course, not necessarily true of the older schools. Nevada high schools offer a total of sixty-three art courses in grades nine through twelve. The effectiveness of these programs depends upon the skill and ingenuity of the instructor, the space allotments, the equipment, and the amount of material available for development of a well rounded art program. Some schools combine facilities for arts and crafts and the two areas are occasionally presented as a single course offering.

## PREVOCATIONAL YEARS

### Emerging Mandates - Art

**I. AT LEAST ONE YEAR IN STUDIO ART, ART HISTORY, OR HUMANITIES SHOULD BE REQUIRED IN GRADES NINE THROUGH TWELVE.**

Every student, regardless of his talent, should develop his sensitivity to art and to the historical or philosophical consideration of art in the development of civilization. These art classes should carry one unit of credit and consist of a minimum of two-hundred minutes a week. Wherever possible, it is desirable to schedule both long and short periods to fit the varying needs.

**II. THERE SHOULD BE AT LEAST ONE ART TEACHER FOR EVERY TWENTY-FIVE SCHEDULED ART PERIODS PER WEEK IN THE SECONDARY SCHOOLS.**

Such a ratio of teacher to teaching hours allows at least one period a day for preparation of program and materials.

**III. THERE SHOULD BE NO MORE THAN TWENTY-FIVE STUDENTS PER TEACHER IN ANY ONE CLASS.**

Special scheduling may be used advantageously to provide for large group instruction and lectures or visual presentation and for small studio groups at other times.

**IV. EVERY SECONDARY SCHOOL OF FIVE HUNDRED OR FEWER PUPILS SHOULD HAVE AT LEAST ONE GENERAL ART ROOM.**

The art room should provide adequate work area for each pupil and one-fourth of the room should be provided for storage of material and works in progress. The room should be completely equipped for all kinds of art work from sketching to ceramic sculpture.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Art

### MODEL I: A General Art Program

OBJECTIVES: At the secondary level, learning experiences in art should be provided for the realization of all four aspects of the art program: Seeing and feeling visual relationships, the creation of art objects, the study of works of art from the past and present, and the critical evaluation of art products.

CONTENT: A sound art program will be varied and flexible. It will include films, TV viewing, collateral reading, lectures, exhibits, working in two or three dimensional media, and extracurricular art education. Larger schools should provide separate rooms for such activities as metal craft, ceramics, print making, and photography. Carefully planned instructional programs should be available in these as well as the more traditional forms of art.

METHODOLOGY: Methods applicable to the wide variety of activities indicated above will, of necessity, be varied. Flexibility and adaptability of method to material and aims is especially necessary in the art program. In small group and studio instruction there must be a maximum of attention given to the individual and his artistic aims and abilities. The program should encourage and provide every opportunity for extracurricular personally motivated creative artistic endeavor.

### MODEL II: Art by Telephone

OBJECTIVES: The art by telephone program developed through the Western States Small Schools Project was designed to combine the use of the amplified telephone and visuals to make it possible for any number of pupils from any number of places to listen to the same lecture, view the same illustrations, and still have a high degree of teacher-pupil interaction. The area of art was selected for this program because, according to David L. Jesser, then Nevada WSSSP Director, "If an area of the curriculum as sensitive as art could be taught successfully in this fashion, the capability of this mode of teaching would certainly be demonstrated."

CONTENT: The course content embodies the basic principles of art: Concepts of good drawing--perspective, mass and line, balance, and design. The student makes his first attempts at drawing by observing a simple outline illustration to which are added by overlay transparencies the details of the picture. When he has gained technical facility in this process he selects his own subject and develops it in a similar manner. The subjects for the work are always related to the student's surroundings. He is taught to find beauty in the everyday. So, "the student works with familiar forms and surroundings--a curling milkweed pod, a Gila monster designed against a red rock, a cactus flower, a clump of golden autumn cottonwood trees."

METHODOLOGY: The laboratory method in which each student works on his own project in his own way is the methodological basis for the course. He progresses in media from pencil or charcoal through chalk, crayon, or water color, to painting with oils.

The program emanates from the Virgin Valley High School in Mesquite, Nevada, where the art work goes on at any and all hours, whenever students have free time. A weekly lecture originating in the Mesquite art laboratory is common to all eleven schools in the project. The oral and visual communication in this multiple-location classroom is accomplished by amplified telephone and slow-scan television.

In the laboratory method the students of widely varied talents may work side by side but noncompetitively. This removes the pressure of competition from the poorer student, while allowing the rarely talented individual to progress as rapidly as he can. Although laboratory conditions vary from school to school, the results have been gratifying in all cases. Participating schools are Pahranagat Valley High School in Alamo, Wells High School, Lincoln County High School, and Indian Springs High School in Nevada; Hageman High School, and Hanson High School in Idaho; Eagle Valley High School and Pine Valley High School in Oregon; and Bryce Valley High School and Enterprise High School in Utah. The master teacher for the course is Michael J. Clark, Virgin Valley High School at Mesquite, Nevada.

# PREVOCATIONAL YEARS

## Present Practices - Special Education

### Educable Mentally Retarded

Comprehensive classes for the educable mentally retarded at the prevocational or secondary level are conducted in Clark, Ormsby, and Washoe Counties. Partial services are offered in Churchill, Elko, and White Pine Counties. At this level, more and more emphasis is being placed on vocational orientation and actual work experience or on-the-job training. Teachers and administrators now recognize the need for well organized, closely supervised programs of vocational training with the unique needs of the educable mentally retarded kept in mind and "education for living" the primary goal. Successful programs of work adjustment and work experience in Clark and Washoe Counties have proven beneficial to both the students and to society and have helped produce active, contributing citizens. In both Clark and Washoe Counties cooperative agreements with the Division of Vocational Rehabilitation, Nevada State Department of Health, Welfare, and Rehabilitation have proven highly successful.

In all counties with classes for educable mentally retarded students at the prevocational level, the stress is on an occupational education curriculum. Students are given an opportunity to participate in a work-study plan in which a portion of the day is devoted to classroom activities and a portion of the day in practical, gainful employment. The curriculum is individualized so that it is directly related to the employment of each student. Continued emphasis is placed upon personal relationships, health, and the academic skills necessary to successfully fulfill the demands of the training situation.

### Trainable Mentally Retarded

Four of the seventeen Nevada school districts maintain classes for the trainable mentally retarded at the prevocational level. Churchill and Ormsby Counties have partial programs and Clark and Washoe Counties maintain segregated schools for these severely retarded children.

The school programs for these severely mentally retarded students include experiences in group and family living. Knowledge of the community and the recognition of the necessary community symbols and signs are made through direct field trip activities in the community surrounding these schools. The development of recreational interests and hobbies is encouraged by sharing and planning in the classroom with records and other collections, and on the playground through simple organized games.

The programs at all levels are designed to encourage acceptable habits of personal behavior, such as cleanliness, good health habits, manners, and the ability to care for personal needs. Activities are designed to improve speech and the ability to communicate needs and ideas to others. The development of good coordination is encouraged in walking, sitting, and the use of the hands. Acceptable work habits are developed by encouraging cooperation with others and the acceptance of direction. Each pupil is helped to achieve independence by learning to complete a simple project and to clean up after himself. He is encouraged to respect the rights and property of others, and to cooperate with adults and other members of his group. His participation in group activities is encouraged as well as his ability to work alone. Training experiences are provided that will enable each individual to develop, to the fullest extent, the limited abilities he may possess. Although emphasis is of necessity on self-help, habit formation, and social training, there is provision for experiences in the academic skills for those who show the ability to profit from them.

Physically Handicapped

Only one district, Clark County, has a total program for the physically handicapped. Partial services are offered in Washoe County at this level. In the Clark County program classes are conducted at the Variety School, Las Vegas. Special equipment and facilities for these classes are provided to aid in the cause of helping the handicapped. The curriculum at the Variety School, at this age level, is basically designed to prepare the student for employment within the community upon graduation.

Visually Handicapped

A. Blind

Clark County has classes for the blind and Washoe County has an itinerant program with a resource teacher serving blind students at the prevocational level.

B. Partially Sighted

This program is conducted on an itinerant basis in Clark and Washoe Counties. Students are integrated into regular classes and participate in the curriculum and activities of that class for as much of the day as they are able. A student goes to the resource teacher for any special help that he may need to enable him to keep up with his sighted classmates. The amount of time per day that each spends with the resource teacher depends on his individual needs and will vary from a few minutes a week to several hours a day. The resource teacher is available to the classroom teachers as a consultant and to prepare materials in medias that are useful to each student, i.e. braille or large print.

Auditorily Handicapped

A. Deaf

One county, Clark, has a program for the deaf at the prevocational years level. Unfortunately, this is the only program in existence in Nevada today for students handicapped by this physical deficiency. There are isolated cases where students residing in other Nevada school districts are sent out of the State for their education. This service is provided by the Deaf Act of the Nevada Statutes and is under the Department of Education, Exceptional Pupil Education.

B. Hard of Hearing

The prevocational years student with a hearing loss and needing special help is served in Churchill, Clark, Ormsby, and Washoe Counties by a program of reinforcement. In Clark and Washoe Counties an itinerant teacher helps these students and in Ormsby County, reinforcement is given by speech clinicians or other special education personnel. Clark County employs a full-time audiologist to enhance their program for the aurally handicapped.

## Multiply Handicapped

Clark County enrolls prevocational years multiply handicapped students in the Variety School. This is the only program in Nevada in this category. A number of multiply handicapped students reside at the Nevada State Hospital in Sparks and the Washoe CSD serves these children so far as is possible, but emphasis is usually directed towards the primary handicap which is mental retardation.

## Educationally Handicapped

At the prevocational years level Churchill and Clark Counties have classes for the emotionally disturbed. During the 1967-68 school year the trend has been towards classifying these classes as students with "learning disabilities" and the term "emotionally disturbed" is slowly being phased out because of the stigma attached. White Pine County has partial services for these students in that a class for students with learning problems at the White Pine High School are segregated and placed in a Special Education class with students with other handicaps.

## Home and Hospital

This program at the secondary level is maintained in Clark, Churchill, and Washoe Counties. Both Clark and Washoe Counties have established cyesis programs. Special instruction is provided for school age expectant mothers. Every effort is made to help the student remain as an active member of the school setting. The home and hospital teacher in most cases will work with the student's principal, counselor, and classroom teachers in order to duplicate as nearly as possible the assignments and school projects the student would have in her classroom.

Whenever possible, the student attends classes in a special school on a minimum day basis. Clark and Washoe Counties have made a determined effort to keep these students in school by offering this service to all pregnant students at the secondary level.

## Speech Therapy

Clark and Washoe Counties assign speech clinicians to the secondary schools. Because speech defects at this age level are usually a more difficult problem, modifications in the program must be made at the junior and senior high school levels. The individual needs of pupils and the number requiring speech help determine the length of time a correctionist spends in a school.

Churchill County provides partial services to students at the prevocational years level, and the Elks Club of Nevada provides some instruction to sparsely populated areas with their Major Project program of helping children with speech and hearing problems.

# PREVOCATIONAL YEARS

## Emerging Mandates - Special Education

The handicapped student as he enters the prevocational years must become fully aware of the problems he will encounter as an adult. For this reason, the special education programs is, and should continue to be, oriented toward providing experiences which will enable the student to adjust properly to social and vocational life as an adult.

I. **THE CURRICULUM FOR SPECIAL EDUCATION DURING THE PREVOCATIONAL YEARS MUST BECOME OF A MORE PRACTICAL NATURE IN ORDER TO PREPARE THE HANDICAPPED STUDENT TO MEET THE BASIC DEMANDS OF THE SOCIETY OF WHICH HE MUST BECOME AN INTEGRAL MEMBER.**

To insure the handicapped student an opportunity to become a respected, self-sufficient member of his society, provisions must be made for quality programs of vocational counseling, on-the-job training, and work experience evaluation.

II. **NEVADA MUST DEVELOP A COOPERATIVE AGREEMENT PROGRAM INVOLVING SCHOOL DISTRICTS AND EMPLOYERS TO PROVIDE A FOLLOW-UP EVALUATION OF THE POSTGRADUATE SPECIAL EDUCATION STUDENT.**

This is of extreme importance, in order for educators to better evaluate special education as to what special education would be striving for.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Special Education

### MODEL

OBJECTIVES: The handicapped student as he enters the prevocational years must become fully aware of the problems he will encounter as an adult. For this reason the special education program should continue to be oriented toward providing experiences which will enable the student to adjust properly to the social and vocational life as an adult.

CONTENT: When a special education student reaches his prevocational years, he should enter a period of training in very practical matters. The knowledge and skills in learning that have gone before should be transferred to action.

METHODOLOGY: The guidance program should be fully utilized at this time. Vocational counseling, on-the-job training, and evaluation of work experiences will take place. A cooperative agreement with employers in various industries and trades will be established. This will be done to aid the student in discovering that type of vocation to which he is best suited, but will aid the employer in becoming aware of the unique attribute and problems of the special student. It will also enable special education personnel to gain valuable information and insight from employers; information that will help them plan and adopt better vocational programs.

The special education student should not be left here. Completion of his prevocational experience should not signal the end of his education. Follow-up postgraduate evaluations should be done for all special education students. A postgraduate facility will then be established. Emphasis will be placed on the further development of vocational skills.

# PREVOCATIONAL YEARS

## Present Practices - Guidance and Counseling

At the junior high school level, emphasis in the guidance program is on individual and group orientation, counseling, and guidance procedures of a developmental and preventive nature. The program is designed to facilitate each student's effort to understand himself, his strengths and limitations, his unique capacities, and his self-worth. Special attention is focused on the choice of realistic life goals, the development of self-reliant behavior, and the opportunity to make individual solutions for his own problems. The program is designed to stimulate occupational interest and to provide experiential, exploratory, and prevocational awareness of the world of work.

There are at present twenty-five junior high school programs, most of them in the urban areas, endeavoring to develop guidance at the early secondary level.

The Nevada secondary schools counselor's primary role is in counseling. He assumes other roles such as consultant, resource person, and researcher only insofar as those roles support his counseling relationships.

The program further includes helping the student in making such decisions as a tentative career choice, the level and direction of training beyond high school, and the selection of electives and activities from high school curriculum that will provide the necessary knowledge to implement his tentative plans.

Some high schools at present assign to the professional counselor time-consuming clerical duties which interfere with his being totally effective in the counseling program of the school. Such programs relate especially to attendance checking, and the assumption of such duties as study-hall and lunch-room supervision. These duties are not consistent with the primary objective of the planned guidance program--to promote the overall development and growth of the individual pupil, to help him in making his plans, choices, and adjustments in meeting his problems, and in understanding himself in the life-long undertaking of self-development and direction.

There are thirty-one senior high school-established programs that endeavor to provide guidance, counseling, and testing services at the secondary level.

# PREVOCATIONAL YEARS

## Emerging Mandates - Guidance and Counseling

I. **THE GUIDANCE AND COUNSELING PROGRAM FOR THE PREVOCATIONAL YEARS MUST DEVELOP AND USE SUPPORTING SERVICES OF OTHER PUPIL PERSONNEL SPECIALISTS.**

Such services must include guidance, attendance (nondisciplinary), school health, psychological and social work services. A team effort by a specialist in each of these areas is necessary to the development of an adequate program of pupil personnel services.

II. **SPECIFIC MEASURES MUST BE TAKEN TO IMPROVE THE COORDINATION AND EFFECTIVENESS OF PUPIL PERSONNEL SERVICES.**

There should be assignment and definition of administrative responsibilities for pupil personnel services, the definition of specific function for each service, the development of an understanding of the funtions, and contributions of pupil personnel services.

III. **THE COUNSELING PROGRAM MUST STIMULATE OCCUPATIONAL INTEREST AND, IN COOPERATION WITH THOSE RESPONSIBLE FOR THE GENERAL EDUCATION PROGRAM, PROVIDE EXPERIMENTAL EXPLORATORY PREVOCATIONAL EXPERIENCE.**

An elective course must be offered in the prevocational years to enable the student to explore some four to nine or more areas of occupational interest. Such a course allows a student to receive orientation and basic experience for a short period of time in each of the several areas.

IV. **A TEAM APPROACH MUST BE DEVELOPED FOR THE SEVERAL PUPIL PERSONNEL SERVICES.**

These services involve such diverse activities as the use of pupil records, case conferences, and in-service education of staff members. Cooperation among those responsible for these several areas is essential.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Guidance and Counseling

### MODEL

OBJECTIVES: The objectives of the prevocational guidance and counseling programs center around the successful execution of the basic functions described in some detail in the section on content which follows:

CONTENT: The essential content of the guidance and counseling program centers around the responsibilities and the supporting activities of the guidance counselor in the following areas:

1. The Planning and Development of the Guidance Program--in which the counselor defines the objectives of the program based on identified needs, and assists in the general implementation of the program.

2. Counseling--individual or small group counseling in which the student is made aware of himself and his potential, a mature person, in solving many of his own problems.

3. Pupil Appraisal--in which the counselor coordinates and interprets professionally the mass of personel and academic data concerning students.

4. Educational and Occupational Planning--rendering assistance to students and their parents in making career decisions constant with each student's abilities.

5. Referral Work--in which the counselor, recognizing his own limitations, suggests and arranges referral to other specialists or agencies.

6. Orientation and Placement--in which the counselor helps students and parents in choosing appropriate courses of study and extracurricular activities, as well as guidance in procedures of application and the like.

7. Staff Consultations--in which the counselor works closely with administrative and instructional staff members particularly relative to student problems and placement.

8. Research Having Special Significance in Local Guidance Problems--lies within the scope of the counselor, who may determine the need for local research and may then do or direct the research and ultimately interpret it to his colleagues and to the community.

9. Public Relations--in which the counselor interprets the counseling and guidance service to other staff members and to the public at large.

METHODOLOGY: Each of the areas described above requires its own particular method or mode of operation. The counselor plays many roles and must adapt himself to a variety of methods.

## PREVOCATIONAL YEARS

### Present Practices - Occupational Guidance

Essential guidance services at the prevocational level include counseling, individual inventory and analysis, testing and work-orientation information services including placement and follow-up. Much emphasis is placed upon the development of decision-making ability in the student and upon the formulation by the individual of such decisions as (1) the choice of a tentative and broad career field, (2) the determination of the level and direction of the student's post-secondary training, and (3) the selection of those electives and activities in the high school curriculum which will provide the necessary knowledge and the exploratory experiences needed to implement his tentative career plans.

There are thirty-one established senior high school guidance programs in Nevada. They vary widely in nature and scope. However, each of them endeavors to provide guidance, counseling and evaluation as well as some placement and follow-up services.

## PREVOCATIONAL YEARS

### Emerging Mandates - Occupational Guidance

**I. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD STIMULATE OCCUPATIONAL INTERESTS AND PROVIDE DIRECT EXPERIENTIAL OR EXPLORATORY OPPORTUNITIES, THEREBY FOSTERING AN APPROPRIATE PREVOCATIONAL AWARENESS OF THE WORLD OF WORK, ITS CHANGING NATURE, ITS TRENDS, ITS DEMANDS, ITS REQUIREMENTS, AND ITS SATISFACTIONS.**

A program of introduction to the career fields in the world of work could be organized according to the New Jersey Plan or the suggested guide for employment preparation developed for Nevada secondary schools. The programs described in these formats become an integral part of the general education of each student. Emphasis is placed upon short-term manipulative exploratory experiences on a cycling basis. The cycling is scheduled for a minimum of four areas, some of which would be: Industrial Arts, Home Economics, Business Education, Scientific Endeavors, Health Services, Graphic Arts, Architecture and Construction, and the Performing Arts. The cycle is a period of two to four weeks' duration based upon one period a day. In each cycle, the instructor exposes the students to informational and manipulative units pertinent to a cluster of occupational areas. Field trips, guest speakers, audiovisual aids, occupational literature, exploratory experiences, and individual and group guidance procedures are employed in the educative process.

**II. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD ASSIST THE STUDENT IN DEVELOPING A REALISTIC UNDERSTANDING OF AND APPRECIATION FOR THE WORLD OF WORK IN RELATIONSHIP TO THE ROLE THAT HE WILL ASSUME IN THE WORLD OF WORK.**

Profile testing and counseling techniques could be expanded in order to continue the assessment and evaluation of the student's position in relationship to the world of work. The Richmond, Virginia, program of selection criteria could be employed to depict a student's capabilities in relationship to specific career endeavors. This provides a useful format for practical application of testing procedures in relationship to activity-performance recommendations.

### III. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD ASSIST THE STUDENT TO MAKE PREPARATION FOR A CAREER FIELD.

Meeting the objective of the occupational guidance program of presenting a wide variety of career fields characterizing the world of work and proffering exploratory experiences is suggested in the format developed for rural school education by the Western States Small School Project. Classes in occupational education are organized in a fashion similar to that of the New Jersey Plan, where students can explore a variety of career fields. This exposure is followed by placement in an appropriate work experience situation in the community which seeks to harmonize the student's eventual career plans with his interests and capabilities. Such a program suggests a residential school facility based upon the cooperative plan of education, whereby a group of students are located on a campus for academic training for so many weeks, and then depart for alternate weeks to assume roles in the occupational field compatible with their career plans. While this first group of students is engaged in the field, a second group of students, having first completed their tour of field duty, return to the campus for their classes.

### IV. THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD EMPHASIZE THE DEVELOPMENT OF DECISION-MAKING COMPETENCIES, RECOGNIZING, HOWEVER, THAT FIRM OR BINDING DECISIONS ARE NOT NECESSARILY EXPECTED AT THIS LEVEL.

The utilization of profile and selection criteria techniques mentioned above serve to assist the student in developing his decision-making competencies since he is presented with both subjective and objective data and expected to develop and analyze this data and then formulate an effective plan. This is one of the most important opportunities for a guidance program and is most crucial in the area of assistance since it is in this area that the opportunity for teaching realistic appraisal and planning skills becomes most obvious.

### V. THE OCCUPATIONAL GUIDANCE PROGRAM MUST INITIATE PLACEMENT AND FOLLOW-UP ACTIVITIES.

It is essential that local educational agencies, school districts, and area vocational schools in particular, strengthen cooperative relationships with management and labor. There should be increased use of, and reliance on, the counsel of advisory committees.

It is essential for the area school personnel worker to coordinate a centralized job placement service, that this service maintain files, records, and organized arrangements of job requests received from employers, and aid all students to take the next step in finding employment after completing a course of study.

It is essential for the placement service to arrange for employers to visit the area schools and vocational-technical centers to interview students.

It is desirable for the area school placement service to survey local employers in determining job openings, to make a list of students who need help in finding a job, to assist students in preparing for a job interview, and to assist dropouts and former students in finding employment. Also, there should be a periodic follow-up study of all graduates and dropouts to determine their progress and adjustment on-the-job and their reactions toward the training they received and possible changes they felt should be made in the training program. It is essential to analyze information obtained from follow-up studies to locate changes that should be made in school programs.

Information designed to assist in the placement of girls and more mature women should include sections on liberal arts, commerce, and business; positions requiring specialized training in such fields as accounting, art and design, library and languages, science, health, and home economics.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Occupational Guidance

MODEL

OBJECTIVES: The occupational guidance program will provide a bridge between the phase of tentative response to the world of work and the phase where the emphasis is on problem-solving. It will concentrate upon experimental exploratory exposure to the world of work. It should continue objective and subjective assessment of the interest and abilities of every student.

CONTENT: There will be continued assessment and evaluation of the student's position in relationship to the world of work. The exposure to various career fields will become part of the regular curriculum. Such exposure will deal with clusters of occupations; for example, those pertinent to industry, health, agriculture, transportation, and other professional areas.

A parental course in occupational guidance will be established which might be organized into the following units suggested by the B'nai B'rith Association:

1. Why occupational guidance?
2. What is occupational guidance?
3. Physiological testing
4. Adolescent personality and occupational choice
5. Considering high school and college
6. The parent's role
7. Occupational information
8. You and your child's career

Academic and occupational interest will be included in the program of occupational guidance.

METHODOLOGY: The Richmond, Virginia, program of selection criteria will be employed to depict a student's capabilities in relationship to specific career endeavors. This provides a useful format for practical application of testing procedures in relationship to activity-performance recommendations. Utilization will be made of both group and individual counseling sessions oriented toward introducing various career fields. Such sessions would provide the regular curriculum exposures needed to develop the bridge between tentative responses to the world of work and the period of decision-making. Exposures could make use of audiovisual media, guest speakers, field trips, special shop and/or home economics projects, and thereby serve to provide at least an introductory level of exposure to the world of work. Exposure period could be scheduled at weekly intervals utilizing regular free period time slots. The format of the Niles County, Michigan, program established a sufficient point of departure for the organization and implementation of such a program. The incorporation of community youth programs such as scouting, 4-H, FFA, FHA, FTA, VICA, DECA, FBLA, QEA, will provide for the reinforcement of the development of occupational awareness, since many of these programs include units of occupational explorations.

Involvement of community resources will include parents of children at this age level. In order to facilitate the involvement of parents and maintain their involvement on a continual basis, the parental course in occupational guidance will be established.

Coordination of the academic and occupational interest of the student will be facilitated through a program of special projects. For example, students in English might pursue a study of biographies pertinent to their own occupational interest. Opportunities for field exposures will be provided on an individual basis which might also serve as a vehicle for involving the parents and thereby strengthen the impact of the program.

## PREVOCATIONAL YEARS

### Present Practices - Health Occupations Education

The health occupations education program for students at the high school level is focused upon the objectives of expanding their knowledge in the world of work, developing a concept of occupational endeavor, and understanding what is involved in discovering one's own field of work. At the present time, a minimum of formal health occupations education exists. Occupational information is handled principally according to individual student interest and largely by the occupational guidance counselor. Health occupations education exploration opportunities administered by the public school system are practically nonexistent in Nevada.

## PREVOCATIONAL YEARS

### Emerging Mandates - Health Occupations Education

I. **STRUCTURED OCCUPATIONAL EXPLORATORY PROGRAMS SUPPORTED BY THE CLUSTER OR CORE CURRICULA CONCEPT MUST BE DEVELOPED.**

Health occupations education information must be organized and disseminated in a series of health occupation exposures, actual contacts, in-service training programs, and cooperative work experiences. The development of the secondary level cluster of curriculum units should be sufficiently versatile as to prepare for entry levels as well as to stimulate post-secondary educational training.

II. **SEQUENTIAL LEARNING EXPERIENCES CAPABLE OF STIMULATING AND SUPPORTING HEALTH OCCUPATIONS EXPLORATION MUST BE GROUPED AS A SEMI-INDEPENDENT UNIT IN ORDER TO MEET THE HEALTH NEEDS OF NEVADA'S CITIZENRY AS WELL AS THE NEEDS OF THE INDIVIDUAL.**

Organization is fundamental to the success of this program. The learning and working experiences of the student should also be supported by youth organization activities so that students are afforded with opportunities to develop and internalize leadership outlooks compatible with their roles as part of a team responsible for the health care of their community.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Health Occupations Education

### MODEL

OBJECTIVES: The cluster or core curricula concept is arrived at by providing a series of basic learning experiences which would render an individual capable of making further preparation in any of several directions. The material for such an approach to health occupations curriculum is predicated upon the recognition that (1) there are certain common understandings and experiences necessary for all health workers regardless of level or functional capacity, (2) the interdisciplinary instruction, which the core curricula concept fosters, is both possible and beneficial, and (3) the educational effort should occur in a setting which admits and endeavors to assume the relationships among the various kinds of preparation necessary in educating the total health core team.

CONTENT: At the secondary level, a cluster approach which might be considered exemplary focuses on the following career choices: Nurse's Aide or Orderly, Home Health Aide, Practical Nurse, and Medical or Dental Assistant. Classroom learning activities are cycled in accordance with an opportunity for applied knowledge usually structured within a particular health agency. Integration with the regular academic classroom is seen in the following exemplar, the study of health occupations biographies in English. Also, the application of language, mathematic, and scientific principles is incorporated with the health occupations cluster or core curricula unit.

METHODOLOGY: The organization of such a training endeavor is most broadly accomplished by the development of a health occupations education center. Such a center is existent in one of two ways: (1) As an administrative concept, or (2) As a specific physical plant. Whatever its realization, the cluster concept is employed for the purpose of providing and coordinating a variety of basic learning exposures and experiences at a variety of educational levels. The learning experiences available would range from career interest stimulation to career preparation. All levels from preschool to postdoctoral would be filtered through the center, either as direct preparation of curricula and training or as cooperative endeavors with other institutions and agencies. In this manner continuity predicated upon a sequence of learning exposures and experiences is possible to the benefit of the student and society at large.

The residential school concept for rural and/or urban interests alike should be carefully explored in combination with the cluster approach of organizing health occupations education. Cooperative work contracts are developed in order to allow the student to engage in manipulative activities in actual health agency settings. Taking advantage of such programs as the candy stripers in local hospitals would provide one avenue of occupational exploration and early in-service training. Similar work experiences might also be organized in a similar fashion to provide a corresponding learning experience. The utilization of youth organizations directed toward or sponsored by the various medical and paramedical professions are included since these exposures would serve to expand the curricula effectiveness by cultivating through various non-school channels the planning and executing of community projects which in turn provide leadership opportunities of local, state, and national scope and develop team approaches which characterize the present trend in health care efforts. Work in the community with several health programs such as 4-H, scouting, and Y. M. or Y. W. C. A. which foster occupational exploration activities is incorporated under such a program as the health occupations center concept. Youth program leaders, administrators, and individual teachers alike are included in the planning and programming of these activities.

Constant survey and evaluation of programs in other states is an integral part of the research endeavors of the health occupations center. In addition, constant survey and evaluation of teacher education programs is also necessary in the attempt to strengthen and broaden the scope and content of the health occupations center.

## PREVOCATIONAL YEARS

### Present Practices - Business and Office Occupations Education

Business and office education represents a balanced program within vocational and technical education in response to community and national needs. Increasing attention is being paid to a balance between the general education program required of all students, the program of exploratory business skills, and the office occupations education program.

Business education is a basic program, a prevocational training program that is available to students desiring it. The program is designed to develop in every student business knowledges, and personal use of skills. It should provide exploratory learning experiences for all students and should provide students who intend to go into business and office occupations with specific prevocational training.

## PREVOCATIONAL YEARS

### Emerging Mandates - Business and Office Occupations Education

I. **BASIC BUSINESS AND ECONOMIC EDUCATION MUST BE AVAILABLE TO ALL STUDENTS AT THE PREVOCATIONAL LEVEL.**

Business education has an important contribution to make to the economic liberacy of every citizen and should be administered and taught as part of the general educational core program. Certain basic skills that are best acquired in business education are useful in the pursuit of college as well as business careers. For example, the college student who can type has another education weapon in his arsenal.

II. **THE COURSES SHOULD BE DESIGNED ON AN INDIVIDUAL BASIS AT ANY EDUCATIONAL LEVEL.**

Individualization of instruction, while obviously desirable in basic skill courses, is equally desirable in the presentation of the most advanced skills.

III. **BUSINESS EDUCATION TEACHERS MUST COOPERATE WITH PARENTS, COUNSELORS, AND TEACHERS OF ALL DISCIPLINES IN STRIVING TO HELP EACH CHILD TO BECOME A RESPONSIBLE SELF-SUFFICIENT CITIZEN.**

To this end, exploratory units in the business office education should be offered to assist the student in assessing his interests and abilities.

IV. **BUSINESS EDUCATION MUST PROVIDE UNITS OF LEARNING FOR STUDENTS PREPARING FOR PROFESSIONAL CAREERS.**

The scope of beginning jobs for college business graduates with a potential for advancement to managerial positions is unlimited.

The need for some students to prepare themselves to teach business subjects is critical. The demand for qualified teachers in this field offers an opportunity for students who are skilled, but who prefer the professional life of a teacher to that of an office worker.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Business and Office Occupations Education

### MODEL I: Business Education and Personal-Use Skills

OBJECTIVES: Business education has an important contribution to make to the economic literacy of every citizen. Since basic business and economic education should be administered and taught as a part of the core program, all of these courses should be available to all students who wish to take them.

Business education may also aid youth by developing in them basic skills that will enhance their success in further educational training.

CONTENT: Since all students must become effective citizens in a business-filled environment, it is important for parents, teachers, and counselors to direct students toward an understanding of basic business and economic concepts. These concepts are essentially found in such courses or units as business economics, consumer economics, basic (general) business, business law, economic geography, introduction to data processing, and business organization and management.

Personal-use skills help the student become a more efficient student and citizen in all forms of written and oral communication. Typing is and will continue to be a universal skill needed for a multitude of personal applications. In addition, there is an ever-increasing need for personal note taking skills both on and off the job.

METHODOLOGY: Some of these courses will be more suitable for slow learners, while others will be more appropriate for the average or gifted learner. For example, a course in economics probably should be recommended for those persons with average and better than average learning ability, while economics in a simplified form, as presented in basic business understandings, can be understood by slow learners.

Study should be programmed on an individual basis at any educational level. Units of this cluster may be taught as a single core program or individually. Some of the basic units are primarily for learners in prevocational and early career development years. Other units are studied more appropriately in secondary and postsecondary years only.

### MODEL II: Business Exploratory and Occupational Support Program

OBJECTIVES: Parents, counselors, and teachers need to help each child become a responsible, self-sufficient citizen. To this end, business and office education must cooperate with others to help guide the student toward success.

CONTENT: Business and office education will participate with other facets of education to offer exploratory units as well as business prerequisites. Units can be clustered under a title, such as "Introduction to Business," "Introduction to Vocations," etc. To aid the adolescent in choosing a career, business and office education instructors may be responsible for the following units:

Data Processing
Basic Accounting
Business Machines
Typing

Occupational Orientation About Office Occupations and Business Professions        Shorthand

The units above may be taught as a special sequence or they may be related to broader outlines and coordinated with other education units, such as "Exploring Professional, Technical, and Managerial Occupations," "Relating Our Economic System to Occupations and to Us," "Exploring Clerical, Sales, and Service Occupations."

In addition to an exploratory course for guidance and information, other topics of study offered by business and office education in the prevocational years for occupational training prerequisites are typing, business mathematics, and basic (general) business. All of these units must be articulated with career development programs in office occupations so that there is a minimum of duplication (overlapping) in instruction as a student proceeds from one level to another.

METHODOLOGY: A business exploration course with a guidance objective can be taught separately or in conjunction with the occupational exploratory course of other educational areas.

## PREVOCATIONAL YEARS

## Emerging Mandates - Business and Office Occupations Education

## College Preparatory Program in Business and Office Education

I. **BUSINESS EDUCATION MUST PROVIDE UNITS OF LEARNING FOR STUDENTS PREPARING FOR A PROFESSIONAL CAREER.**

Such units must be provided in order to more effectively guide students and help them to achieve an understanding of opportunities available to them in the business world. The scope of beginning jobs for college business graduates is unlimited.

II. **BUSINESS EDUCATION PROGRAMS MUST ASSIST COLLEGE-BOUND BUSINESS STUDENTS AS WELL AS OTHER COLLEGE PREPARATORY STUDENTS TO DEVELOP A BROADER UNDERSTANDING OF AMERICAN BUSINESS AND LEGAL SYSTEMS.**

In addition to disseminating information and initiating basic skill development, business education can assist both these groups of students in communications skills, study skills, and retention capabilities.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Business and Office Occupations Education

### MODEL I: The College Preparatory (Preprofessional) Program

OBJECTIVES: The objectives of the business education program for secondary college preparatory students are three-fold: (1) To develop in the student some basic understanding, knowledge, and skills that will help lead him to desirable business opportunities through higher education; (2) To develop basic skills in the student that will enable him to be a more efficient learner during his post-secondary training; (3) To develop within the student a basic understanding of the American business and legal systems, thus helping him to become a more responsible citizen.

CONTENT: The college preparatory program will include the following business units for study:

A. General Guidance and Information

1. Basic exploration units
2. Basic (general) business

B. Business Preparatory

1. Business administration goal--in addition to English, algebra, science, civics, American History, physical education, home economics, foreign language, chemistry, or biology, the student may include the following: Basic business, accounting, business English, business mathematics or computer arithmetic, geometry, personal note taking, personal typing, introduction to data processing, economics.

2. Secretarial administration goal--in addition to the academic units listed under number 1, the student may select two mathematic units from algebra, geometry, business mathematics, general mathematics; and may include basic business, typing, accounting, shorthand, business English, secretarial office practice.

3. Business teacher education goal--in addition to the academic units indicated under number 1, the student may include: Basic business, business mathematics, algebra or geometry, business law, basic accounting, typing, shorthand, business English, economics, introduction to data processing, and/or computer arithmetic.

METHODOLOGY: By definition, these courses offered in the college preparatory program are offered in the secondary schools for preprofessional preparation. All recommended units are electives chosen by the individual student with the aid of parents and counselors.

A student may wish to elect note taking, personal typing, business economics, and/or business law to aid in his understanding of what it means to live in a business-filled environment or to acquire the personal business skills which will enhance his ability to perform in the business or professional world.

## PREVOCATIONAL YEARS
(ages 12-17)

### Present Practices - Home Economics Education

Home economics education at the prevocational level has three major purposes as follows: (1) To improve the quality of family living; (2) To help youth develop the abilities needed for the occupation of homemaking--guidance of children, management of resources, and feeding, clothing, and housing families; and (3) To provide the prevocational or preprofessional education for students who will enter occupational training programs or colleges and universities to become professional home economists.

Both education for homemaking and home economics for gainful employment draw upon a common field of knowledge--home economics--which has as its major concern the strengthening of family life. Home economics is an applied science synthesizing knowledge drawn from its own research, from the physical, bibiological, and social sciences and the arts. It applies this knowledge to improve the lives of families and individuals. Its concern is with these aspects of family living: Human development and the family; textiles and clothing; foods and nutrition; home mangement and family economics; and housing and home furnishings.

Education for successful personal and family living and for the occupation of homemaking serve as prevocational training and contribute to the development of employability skills required in gainful employment, as well as preparing individuals for their dual roles as homemakers-wageearners.

### Curriculum

A number of workshops sponsored by the Nevada State Division of Vocational Education have helped to acquaint teachers with the concept approach to the teaching-learning process, and the newer curriculum guides published by the division employ the concepts and generalizations developed in suggested teaching plans. These curriculum guides are:

A Guide for Teaching Child Development, February 1967
Housing and Home Furnishings. A Unit for Homemaking I, September 1964
Housing and Home Furnishings. A Unit for Family Living, September 1964
Housing and Home Furnishings. A Semester Course, December 1964
A Guide for Teaching Money Management, July 1964
A Guide for Teaching Personal and Family Relationships, July 1963

The latest curriculum guides have also been developed using the levels of learning behavior in the cognitive domain as developed in the bulletin by Benjamin S. Bloom, Taxonomy of Educational Objectives, Handbook I: Cognitive Domain.

Throughout the years a continuous curriculum development program has been in effect with many Nevada teachers participating. Several years ago, Arizona adopted the Nevada Curriculum Guide in Family Relationships. Nevada has recently adopted two guides developed by the Arizona State Division of Vocational Education in the areas of Textiles and Clothing and Foods and Nutrition, both of which are based on the concepts and generalizations included in the home economics structure.

## Home and Community Experiences

Since the first Vocational Education Act was passed in 1917, home economics education has placed emphasis on applying what was learned in the home. Home projects--and later home experiences--have been an important aspect of the program and a means of individualizing instruction. Students develop goals and plans for learning in conferences with their home economics teachers and with parental approval; they carry out their plans; and they evaluate their progress toward goals. In recent years home and community experiences have been used as a means of extending the walls of the classroom into the home and the community. Short term home or community experiences tied closely to classroom learnings have replaced the more extensive home projects of the past.

## Future Homemakers of America

Many Nevada homemaking education programs have been vastly enriched through learning experiences in FHA. Projects and programs planned and carried out by the chapter members of Future Homemakers of America have provided additional opportunities for students to achieve some of the objectives of the homemaking program toward which their class and home experiences are directed.

## Facilities

Facilities for homemaking education vary from school to school. General inadequacies of present departments are:

1. Lack of adequate space for additional and group work or for large groups.

2. Lack of conveniently placed and adequate storage for all supplies and mobile equipment when not in use.

3. Lack of flexibility and the freedom to adjust, rearrange, and alter the space or any aspect of the facilities as the need arises.

4. Lack of provisions for regulating temperature. Airconditioning is needed in many departments for comfort in fall and spring.

5. Lack of provisions for effective use of audiovisual equipment.

# PREVOCATIONAL YEARS

## Emerging Mandates - Home Economics

I. **IN LIGHT OF THE MANY CHANGES IN OUR SOCIETY AFFECTING HOMES AND FAMILIES, HOMEMAKING EDUCATION MUST STRIVE TO REACH ALL YOUTH IN THE PREVOCATIONAL YEARS AND TO FOCUS ATTENTION ON STRENGTHENING AND ENRICHING FAMILY LIFE.**

Homemaking education, if it is to remain a vital subject, must encompass the entire area of home economics. Important areas must not be neglected--understanding of the child; family and human development; management of personal and family resources; feeding, clothing, and housing family members; and the development of personal qualities related to employability.

II. **HOME ECONOMICS HAS A CONTRIBUTION TO MAKE TO ALL SUBCULTURES IN OUR SOCIETY, BUT SPECIAL ATTENTION MUST BE GIVEN TO PROVIDING INCREASED HELP TO DISADVANTAGED STUDENTS AND TO POTENTIAL DROPOUTS.**

Disadvantaged youth need to learn ways to improve their home environments as well as their work habits in order that they may become employable. The school must provide adult models for students success experiences for the creation of a positive self-image; an accepting climate; cultural enrichment; and an educational program which meets their needs for occupational training.

III. **HOMEMAKING EDUCATION MUST GIVE MORE EMPHASIS TO THE AREA OF HUMAN DEVELOPMENT, MENTAL HEALTH, AND THE FAMILY IF IT IS TO STRENGTHEN AND ENRICH HOME AND FAMILY LIFE.**

Researchers in child development tell us that parents or parent-substitutes are the main and fundamental influences in the child's life; and what happens to the child at home in combination with what he is born with, mainly determines what kind of an adult he will become. Home economics education assumes a responsibility in education for parenthood.

IV. **CURRENT PREVOCATIONAL PROGRAMS IN HOME ECONOMICS MUST BE MODIFIED TO PROVIDE AS A PART OF COURSE WORK FOR ALL STUDENTS INSTRUCTION DESIGNED TO ACQUAINT THEM WITH TODAY'S WORLD OF WORK.**

At early adolescence students need to expand their knowledge of the working community to develop a concept of work and understand what is involved in finding one's field of work; students need to understand the role of human relations in job success, and to analyze themselves in relation to their needs for personal development.

V. **PROGRAM PLANNING MUST BE FLEXIBLE TO DEVELOP COURSES TO MEET PARTICULAR NEEDS.**

For example, the senior girl, who decides she would like to have some home economics to help her after she goes into a business career; the academically talented college-bound student who wants specific areas of home economics; the student who is interested in marriage and family; the very slow or special education student; boys, who also share in homemaking, and who need preparation for their masculine roles.

VI. **THE HOME ECONOMICS CURRICULUM MUST BE BASED ON THE PROCESSES OF PROBLEM-SOLVING, DISCOVERY, EXPERIMENTATION, AND EVALUATION AS WELL AS UPON CONTENT.**

Education for effective thinking must have high priority in home economics classes.

VII. **HOMEMAKING EDUCATION MUST HELP STUDENTS LEARN HOW TO LEARN.**

The concept approach is designed to teach people to think, to learn, to see, i.e., correlation, to evaluate, to use concepts and generalizations, and to help teachers be aware of what they are teaching and why.

VIII. **MORE INDIVIDUALIZATION OF INSTRUCTION MUST OCCUR.**

Students need more opportunity to build their own programs according to their own interests and needs. Students need opportunities to plan learning experiences which they can carry out in their own family settings.

IX. **THE FUTURE HOMEMAKERS OF AMERICA YOUTH ORGANIZATION MUST BE STRENGTHENED, BOTH IN URBAN AND RURAL AREAS, AND EFFORTS MUST BE MADE TO SERVE THE NEEDS OF DISADVANTAGED YOUTH IN ORDER THAT THEY CAN BENEFIT FROM THE LEADERSHIP DEVELOPMENT AND CULTURALLY ENRICHING ACTIVITIES OFFERED BY SUCH AN ORGANIZATION.**

A youth organization such as FHA can help students develop self-esteem through service projects designed to help people needing help.

X. **SINCE THE TIME AVAILABLE FOR NONREMUNERATIVE PURSUITS IS LIKELY TO INCREASE, THE PROGRAMS MUST PREPARE STUDENTS FOR LEISURE TIME ACTIVITIES.**

Development of an enjoyment of home economics skills such as sewing, cooking, and home decorating can help prepare students for wholesome use of leisure time.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Home Economics

### MODEL I: Home Economics - Occupational Arts

OBJECTIVES: Home economics programs will be oriented to the young girl's personal interests. The range of subject matter will continue to include food preparation and using the kitchen; grooming and clothing construction; care of the home; relationships with family and friends; money management; and caring for young children. Prevocational home economics programs will be modified to provide instruction designed to acquaint them with today's work force. At the early adolescent level, students need to expand their knowledge of the world of work, develop a concept of work and understand what is involved in finding one's field of employment. With the increasing number of students who do not complete high school it is necessary to present to them early in their teen years possibilities for earning a living.

CONTENT: Occupational arts units of approximately six to nine weeks in length will be set up in the areas of home economics as follows: Exploring the world of children, exploring the world of people in our lives, exploring the world of food, exploring the world of clothing, exploring the world of money, exploring our actions and feelings, exploring home arts and home decoration. The units will be designed in such a way that students will not only explore various occupational fields and gain the necessary skills to prepare them for working, but will increase their interest in home economics through activity-oriented projects.

METHODOLOGY: In studying the world of children, actual study trips will be made to see how people earn an income through taking care of children. Child care centers, elementary schools, children's wards in hospitals or mental health facilities will be visited or seen on closed circuit television or films. Persons who work with youth groups will serve as resource people to describe how their incomes are derived from working with children. Additionally, principles of child care will be studied in class and various types of work experience will be arranged--babysitting, caring for young children during church services, or conducting story hours at the public library.

Some of the concepts to be included will be an understanding of the necessity of making continuous educational and vocational plans; comprehension of the concept that many personal qualities will contribute to healthy friendships and to employability; appreciation of the increasing need for individuals to develop personal qualities and skills that are saleable in obtaining part-time work at this age.

### MODEL II: Home Economics - Comprehensive

The objectives of the comprehensive Home Economics model are precisely the same as those in the Occupational Arts model. (Model I)

CONTENT: It is recommended that an alternate program be available to schools who are increasing the use of modules as a method of instruction. Hopefully a school will develop seven units (three home economics and four of other areas as music, art, and industrial arts). Students will select six units for the year. Boys will select any two from the three offered in home economics.

Girls will be required to take the three units offered in home economics but will elect to take them in the sequence they prefer. Schools will have the alternative of offering this program or an expanded version in the seventh grade, eighth grade, or both, as student interest indicates.

Three discrete units of six weeks each will be offered as follows: Your Appearance, Food for People, and Building Your Life.

METHODOLOGY: The unit, Your Appearance, is to be structured around major concepts and generalizations concerned with wardrobe planning, management and care of clothing, and being attractively and appropriately dressed in relation to the psychological and sociological effects on the individual.

Concepts to be included are: Meanings of clothing (clothing relations to the person, the roles and goals of the person); appearance does not depend just on clothes (food one needs, scrubbed look routine, hair and cosmetics, and social skills that will make you attractive); decisions to be made in buying clothes (planning an adequate wardrobe, consumer education, fibers, fabrics, and care); vocational possibilities open in the area of clothing and fashion.

The unit, Food for People, will be structured around food preparation and interwoven with physiological and psychological, as well as sociological, functions of food as they relate to the well-being and satisfaction to be gained from the appropriate selection and preparation of food.

Some of the concepts to be included in this unit are an understanding of the functions of food--social functions, customs for eating, and customs for table manners. It is anticipated that students will gain knowledge of the psychological and physiological functions of food, the need for healthful dieting, and of the opportunities for gainful employment in jobs involving food preparation, knowledge and skills.

The Building Your Life unit will be structured around the major goal of increasing understandings of self, family, and friends.

Concepts to be included are an understanding of growth changes of this age; privileges and responsibilities of living in a family and making friends; an understanding of the responsibilities involved in caring for children, and the recognition of how children differ and the possible reasons for these differences; the using of money, choices, and human resources; the availability of part-time employment.

## MODEL III: Homemaking and Consumer Education

OBJECTIVES: Home Economics directed toward preparation for the occupation of homemaking must be continued as an important major emphasis due to the societal trend of early marriage and noncompletion of high school education.

CONTENT: It is recommended that a comprehensive home economics course focusing on the teenage girl be offered in the ninth or tenth grade (preferably ninth). The course would be so organized that it could be taken for the entire year or could be taken either fall or spring semester.

Suggested course content includes units in the following areas of home economics: Personal Spending, Growing Toward Maturity, Foods, Clothing and

Cultural Environment, Textiles, Care of Clothing, Consumer Education, Fashioning One's Own Clothing, Home Furnishings, and Children.

The units should be designed in such a way that students will not only learn about themselves as teenage girls in today's world, but will see possibilities for employment in all these areas either as semi-skilled or skilled workers.

Concepts to be included are development and use of a workable plan for spending; understanding family financial planning; developing satisfactory relationships with the other sex; recognizing the steps and process involved in attaining maturity; studying and preparing of food in relation to the well-being of individuals; seeing clothing as a method of grouped identification, individual creativity and artistic expression; recognizing the importance of being an educated consumer; learning techniques necessary for clothing construction; learning to achieve beauty in the home through furniture selection and arrangement and the use of accessories; and developing an understanding of the basic needs of children at the various levels of development and how they may be met.

METHODOLOGY: In studying each unit, a broad survey of the field needs to be made. When conducting a unit on foods, topics to cover would be equipment for food preparation; food preservation, including the reasons for preserving and protecting food; consumption of food--the use of nutritional knowledge, dangers of food faddism and food quackery, reliable sources of information, protective agencies, and consumers' responsibility. Each area could be presented using a variety of teaching techniques--resource persons, study trips, filmstrips, practical experiments.

## MODEL IV: Career Orientation

OBJECTIVES: Current educational trends must take new direction in order to reach all students in need of guidance. With the number of young workers, women workers, and service workers increasing it becomes necessary to present in-depth courses which provide students opportunities to explore career possibilities at all levels of skill.

It is suggested that four in-depth semester length courses be offered. A person enrolling in any or all of the in-depth courses may or may not have had previous formal work in home economics. Courses, except clothing, would be open to boys and girls. An in-depth course may serve as the prerequisite for a world of work oriented course.

These subject matter models may be used as in-depth courses as outlined or a school may select portions and offer short units for boys and girls going to college related to their current needs and interests.

CONTENT: (People in Our World) Through this in-depth study it is anticipated that young people will gain in perspective through an understanding of themselves and of others. It is believed that problems can be solved and challenges met more easily when young people have some understanding of the viewpoints of parents and other members of society.

Class members will need to be involved with real people--people throughout the continuum from birth to old age, people with varying degrees of affluence and poverty as well as people of differing ethnic and racial backgrounds. Guests will need to be brought into the classroom and students will need to go out into the community. Students will need to talk with each other in small groups to verbalize what they have seen and to bring to a conscious level their feelings, their prejudices and their knowledge of social issues and conditions facing people in our world today.

Suggested units within the course include the study of: The People Our Age, The Infant and Young Child, The People Responsible for Us (child raising years to retirement), People After Retirement.

Not only will factual information about each age level be covered, but speakers and study trips can be used to introduce students to the various people and agencies who work with people of all ages--for example, welfare workers and agencies, homes for the aged, nurses and companions to the elderly, nursery school operators and aides, cottage mothers at children's homes, and many others. All of these agencies offer possibilities for employment at both semiskilled and professional levels.

Concepts to be included are an understanding of: Needs and concerns of young people of different social, racial, educational, and economic groups; heredity and environment as a factor in making people different; stumbling blocks which teenagers meet; mental and emotional health as related to teenagers, community, and the nation; responsibilities involved in establishing a home and family; social services available to parents and couples (marriage counseling services, money management services, child guidance services); conditions unique to senior citizens--too much time, too little money, and the feeling of uselessness; the individual's, the family's and society's responsibility to senior citizens.

(Housing and Home Management) This course is to be structured around major concepts and generalizations concerned with housing and management in the home. There should also be much specific factual information to support these concepts and generalizations. It should be remembered that when students have many opportunities to discuss and use concepts, they can be encouraged to summarize what they have learned in the form of generalizations.

It is recommended that at least five areas of study be included in this course. Possible unit titles are: Homes for Family Living, Management for Modern Families, Making Homes Livable, Homes of the Future, Planning Careers in Housing. Interaction with community resource people and facilities will enable class members not only to gain practical, workable information, but will allow them to see people at work in all levels of the housing and management field. Sources for speakers and study trips are architectural firms, interior design studios, furniture stores, upholstering firms, and furniture or carpet factories and warehouses, all of which are available in Nevada.

Concepts to be included are the understanding of: Housing as it meets the family's needs; architecture and community planning; factors which influence housing choices; management and resources; money management and family spending; consumer credit and better buymanship; furnishings, beauty, and color in the home; the future of cities, automation in the home; new products, materials, and technology; and careers available in the area of housing management.

(Food and People) Through the in-depth study of foods and nutrition in this course, the areas of biology, chemistry, agriculture, art, and geography are related to home economics. The social and psychological decisions of shopping and management, and earning a living are tied together. There should also be much specific factual information to support these concepts and generalizations. It should be remembered that when students have had many opportunities to discuss and use concepts, they can be encouraged to summarize what they have learned in the form of generalizations.

It is recommended that course content be divided into the following topics of study: The Significance of Food, a relationship of food habits and preferences to the world's economic and social situation; The Nature of Food, science of food as interrelated with other sciences; The Management of Food Resources, values of food plans both economically and nutritionally; The Historical and Cultural Aspects of Food; and Food in the Family Life Cycle. Students will need to be involved in programs presented as a cooperative effort between home economics and other departments within the school (chemistry, biology, art, agriculture, history). Resource persons and study trips will enable class members to relate the study of food to community agencies, services, and available occupations in the field.

Concepts to be included are an understanding of: Causes and cures of malnutrition around the world; agencies concerned with the universal food problem, such as UNICEF, UNESCO, FAO, and WHO; past and future research on the study of nutrition today; the functioning of the human body and life itself--the complex system of chemical and physiological processes; cell structure of plants and animals used as food; principles of food cookery as they result in food pleasing to see, taste, and eat; the preservation of food; food dollars in relation to total income; the many possibilities for employment in the food industry, from production to consumption.

(Clothing) As defined, the one semester course would not develop skill in the construction aspect of clothing but rather in the selection of clothing. If skill in construction is to be developed, a second semester would have to be offered. This second semester could be wage earning oriented. It is suggested that course content include the study of: Origins of Fashion (the fashion industry), Textiles, Factors Involved in Clothing Decision (needs, desires, and values), Designing, Careers Related to the Textile and Clothing Field, and Concerns for Construction.

Student learning will be strengthened by the opportunity to visit fashion houses, listening to people employed in clothing-textile related capacities, and actively participating in design and construction techniques.

Concepts to be included are an understanding of: Present day fashions and changes in society affecting fashion; the natural fibers--wool, silk, linen and the man-made fibers; role perception and expectations; design of clothes--line, color, texture; shopping for clothing for different family members; household fabrics for the family (linens and bedding, curtains, draperies, slipcovers, upholstery, rugs, carpets); professions for the college-bound student and occupations for the high school graduate; basic construction techniques with emphasis on correlation of fabric and pattern, pattern alterations, and the construction, techniques of collar, sleeve, and waistline seam treatment.

### MODEL V: Family Living

OBJECTIVES: The roles of men and women have been changing rapidly and the transition period from childhood to adulthood has become shorter. Only 40 percent of the high school graduates seek higher education; therefore, it seems advisable that schools offer a comprehensive family living course to prepare students for their roles as individuals in the family and society.

CONTENT: It is recommended that this course be coeducational. It may be taken for one or two semesters by boys and girls who may or may not have had previous formal education in home economics.

Suggested course content includes units in the following areas: Family Development, The Adult in Our Society, Food for Families, Housing, Money Management, Home Nursing, and Clothing.

Concepts to be included in the various units are: Family Development--the family life cycle, family developmental tasks, families as they reflect social change, family status and social class, trends in family orientation and childbearing, expanding and contracting families; The Adult in Our Society--the roles of the single person, a marriage partner, a parent, a member of the community (local, state, nation, and world); Food for Families--world nutrition, historical and cultural aspects of food, the family life cycle and food needs, purchasing food, preparing and serving food, and food for the convalescent; Housing--housing problems in the United States today such as slums and segregation, housing for the aging, the high cost of housing, government participation in housing, and mobility in housing; Money Management--social and economic settings in which families live; the need for management in family living; financial information to aid in decision-making; Family Health--the need for family, community, and world health with special emphasis on mental health; Clothing--conformity and individuality in dress, social change and fashion change, reference groups and clothing behavior, clothes and the self-concept, clothing and physical appearance, clothes and the job, consumer information, responsibilities of consumers, federal legislation, quality in clothing, upkeep of clothing.

METHODOLOGY: The course needs to be structured around the major concepts and generalizations concerned with the areas which are included. A variety of methods and media need to be used in order that students will acquire the factual information which will help them arrive at basic generalizations.

## PREVOCATIONAL YEARS

### Present Practices - Industrial Arts

The objectives of the industrial arts program at this level is occupational preparation through the unit shop approach in trade and industrial courses. Generally, in Nevada, students enrolled in this program are preparing for occupations at the entry level and expect to secure jobs in specific classifications upon high school graduation. Students typically specialize in an occupational skill such as auto mechanics, metal, woodworking, or some related area.

An unstructured approach presently exists in most courses. Students are guided frequently by working independently in a series of exploratory and creative as well as specific manipulating learning experiences with a variety of instructional materials. Safe practices in the use and care of industrial equipment, materials, and processes are emphasized.

## PREVOCATIONAL YEARS

### Emerging Mandates - Industrial Arts

I. **THE PROGRAM MUST PROVIDE STRUCTURED LEARNING OPPORTUNITIES FOR ALL STUDENTS SO THAT THE RELATIONSHIP BETWEEN THE CLASSROOM ENDEAVOR AND THE WORLD OF WORK BECOMES OBVIOUS.**

The focus must be upon the development and provision of significant industrial exposures, actual contact, and in-service training manipulative experience. No matter how extensive or inventive the opportunities for specific skill acquisition are, they are not the total curricula--they are merely the components. Thus, the total endeavor must concentrate beyond this effort to provide meaningful opportunities for all students to develop interest, talents, aptitude, and mechanical skills.

II. **THERE MUST BE IMPROVEMENT IN THE AREA OF SPECIALIZATION FOR THOSE STUDENTS WHO DESIRE PROFICIENCY AT THE ENTRY LEVEL.**

Students anticipating immediate employment must be provided with more variety in specialized fields and more opportunities to apply learning experiences. Thus, to be efficient and effective, the industrial arts program in the prevocational years must provide widespread and continued opportunities for industrial exploration as well as specific experiences in occupational speciality areas such as wood, metal, electricity, drawing, auto-mechanics, graphic arts, and power mechanics.

III. **ACTIVITIES INVOLVING THE PRACTICAL APPLICATION OF LANGUAGE, MATHEMATICS, AND SCIENCE MUST BE EMPHASIZED AND INTEGRATED WITH THE CURRICULAR UNIT BY CONSCIENCE PLANNING PROCESSES.**

The practical application of these academically oriented studies must be made clear, and this relationship used as a motivational force in their presentation.

IV. **REINFORCEMENT OF THE TOTAL INDUSTRIAL ARTS PROGRAM OF INSTRUCTION MUST BE PROVIDED BY THE DEVELOPMENT AND INTRODUCTION OF INDUSTRY-AFFILIATED YOUTH ORGANIZATIONS SO THAT THE STUDENTS ARE AFFORDED OPPORTUNITIES TO DEVELOP AND INTERNALIZE LEADERSHIP AND VALUE OUTLOOKS COMPATIBLE WITH THE INDUSTRIAL SUBWORLD OF THE WORLD OF WORK.**

In this respect, the industrial arts program must develop its own counterpart for the Future Farmers of America, Future Homemakers of America, and the National Honor Society.

V. **EVERY STUDENT MUST BE PROVIDED WITH THE OPPORTUNITY OF SPECIALIZING WITHIN THE INDUSTRIAL ARTS PROGRAM ACCORDING TO HIS INDIVIDUAL NEEDS AND INTEREST.**

If the program planning is comprehensive, then sufficient latitude for vertical or horizontal mobility must be provided without interruption in the continuity of learning experiences. Program components must be organized and revealed developmentally so that in-depth study on specialization opportunities are available to all students.

VI. **SPECIFIC COURSE OFFERINGS MUST BE IDENTIFIED WITHIN THE OCCUPATIONAL, PREENGINEERING, AND PREINDUSTRIAL CONCEPTS AND CORRESPOND DIRECTLY TO THE CURRICULAR UNITS.**

The sequences in the several areas of specialization, the areas of difference and the common and commonality must be clearly apparent in all specific course offerings.

VII. **EXPOSURE OPPORTUNITIES MUST BE ORGANIZED IN A MINIMUM OF ONE HOUR BLOCKS SUBJECT TO FLEXIBLE SCHEDULING PROCEDURES, FIVE DAYS A WEEK.**

Less fragmentation and some longer block assignments are needed to allow for sustained experiences.

VIII. **ADVANCE SUBJECT OR AREA SPECIALIZATION MUST BE STRUCTURED SO THAT STUDENTS CAN PURSUE WITH FULL CREDIT ONE OR MORE COURSE AREAS FOR TWO CONSECUTIVE YEARS.**

The comprehensive program must be two-fold in its approach to permit most exploratory and specialization opportunities; the industrial arts program must be multi-faceted in design ranging from entry level learning experiences to sophisticated industry, research, and design techniques.

# PREVOCATIONAL YEARS

## Recommended Exemplars - Industrial Arts

### MODEL

OBJECTIVES: Emphasis will be placed upon organizing and disseminating an increasing amount of interrelated information which encompasses as many learning channels and experiences as possible in representing our modern technological society. The emphasis on the basis of fundamental curricular components will be expanded.

CONTENT: At this level, in the shop or homemaking experiences, the individual will take basic courses for a specified number of weeks in drawing, bench metal, electricity, and bench woodwork. During the second half of their program they will be engaged in and concentrate upon, according to individual interest, sketching and project planning, plastics and industrial crafts, the latter of which focuses upon leather, art metal, graphic arts, ceramics, jewelry and lapidary, wood carving, and mosaics. Such a program will permit a greater latitude in the concentration upon individual learning experiences, since different groups of students will be concentrating on different fields at any given time. Such a program will permit the instructor and the instructor aides to focus attention on individual students. It will also permit a maximization of student involvements when students are working on or in those areas which they perceive as most rewarding.

Application of language, science, and mathematics subjects will be as frequent and as structured as possible. Close correlation of the interrelationship and cross reinforcement of specific materials and teaching efforts will serve to accomplish the necessary and desired integration of curricular materials.

METHODOLOGY: The length of time assigned to each curricular area will admittedly be insufficient to permit in-depth coverage of any given subject area including all of the skills of technical information germane to that area. However, the suggested approach fulfills the mandate of this level of instruction and exploration by providing students with the opportunity to explore a wide variety of industrial formats, materials, and occupational endeavors and at the same time to acquire basic knowledge of essential skills. In addition, the comprehensive curricula approach facilitates the achievement of self-discovery since the student is seen in terms of his interests, aptitudes and manipulative inclinations. The format of organization is based upon a rotating approach in which the students study first a specified number of weeks of essentials and then are permitted some latitude in choosing their programs as far as concentration is concerned. The time period allocated to each exploratory shop unit should not be less than 45 minutes a day, five days a week.

## PREVOCATIONAL YEARS

### An Introduction - Technical Education

While technical education as it relates to the general exposure to occupations has implications for general education from kindergarten through the program for adults, its major impact during the prevocational years is felt in the last two years of high school. Prior to this time the student should have been exposed to occupational information, to have participated in some exploratory work and in some formal shop labs, and in introductory work in electronics and drafting.

## PREVOCATIONAL YEARS

### Present Practices - Technical Education

Since 1960, the growth of technical education in Nevada has reflected growth patterns taking place on the national level, although in many situations, we lag far behind the leading states. At the present time, Nevada has pre-technical and technical courses being offered at the tenth, eleventh, and twelfth grade levels.

In most of the larger high schools, classes are offered in mechanical drafting and electronics. However, in many of the smaller schools mechanical drafting is still the only technical course available to the students. Some high schools in Clark and Washoe Counties have recently offered courses in business data processing to supplement the technical curriculum. Southern Nevada Vocational-Technical Center is likewise offering courses in the areas of drafting and design, electronics, data processing, as well as in X-ray technology, highway technology, medical laboratory technology, police science technology, and fire fighting technology.

These courses indicate that technical education opportunities are available to the people of the State; however, these opportunities are limited and do not include such vital areas as electrical technology, civil and the building construction technology, chemical technology, instrumentation, aeronautical technology, metallurgy, mechanical technolgoy, air conditioning, refrigeration, and heating technology.

Very little has been done in Nevada in occupational orientation for technical education. Consequently, many students are unaware of the tremendous opportunities available to them in technology. Counselors are at the present time carrying on a limited orientation in some of the junior and senior high schools, but there is not a continuous program being conducted.

Some exploratory programs are currently being conducted in the industrial arts programs for students in grades seven through twelve, but these seem to be too inadequate to enable most students to understand work and to know something about the varieties and challenges of the technical occupations.

Current programs in technical education are, generally, instructed in traditional fashion. The lecture method is used extensively in some schools, particularly where equipment is inadequate and outdated. Some programs are likewise being conducted, using curriculum guides that are outdated and techniques that are no longer applicable in industry.

On the other hand, there are many fine programs being conducted in the larger high schools and at the Vocational-Technical Center. These programs are using modern equipment and techniques as well as up-to-date curriculum guides. They may include team-teaching, the use of occupational clusters, the conceptual approach to occupational education, the use of new educational media, and experimental and demonstration techniques in programmed learning and development.

## PREVOCATIONAL YEARS

### Emerging Mandates - Technical Education

I. **THE PROGRAMS OFFERED TO THE STUDENTS MUST USE A GENERAL AND EXPLORATORY APPROACH ORGANIZED AROUND RELATED CLASSES OF JOBS.**

This enables the student to select a "cluster" of related courses and to pursue them to a number of possible levels.

II. **VOCATIONAL-TECHNICAL EDUCATION MUST BE AVAILABLE TO PERSONS OF ALL AGES AND IN ALL COMMUNITIES OF THE STATE.**

As the President's panel of consultants on vocational education pointed out in Education for a Changing World of Work: "Education must be a continuing process--not simply vaccination given to make the person thereafter immune to ignorance or the needs for change. No longer will a person be able to enter the world of work with a set of skills which will serve him throughout his working life. He must be in a position to up-grade his skills continually, or to learn new skills if he is to maintain economic security. The need for lifelong learning is now a fact of life."

III. **PROGRAMS OFFERED IN VOCATIONAL AND TECHNICAL EDUCATION MUST BE REALISTIC. THIS IS PARTICULARLY IMPORTANT IN THESE WAYS:**

A. The job training offered must be related to the job opportunity presently existing in the economy.

B. The vocational-technical program must maintain the flexibility necessary to plan the projected future job opportunities.

IV. **ADVISORY COMMITTEES MUST BE USED REALISTICALLY IN DETERMINING CURRICULUM OFFERINGS.**

These committees must provide a vital link at the local, county, and state level between the school and industry. They must help determine curriculum materials, standards of proficiency, a design of cooperative part-time work programs, and the procedures for the placement of graduates.

V. **OCCUPATIONAL INFORMATION MUST BE AVAILABLE FOR ALL.**

All students, kindergarten through high school, must be exposed continually to the realities of the world of work. A student's understanding of that world should include the basic idea that preparation is necessary for successful employment and that job opportunities for the unprepared and unskilled are fast disappearing. For this reason, exploratory programs must be developed early in the curriculum that will enable students to understand work and to know something about the varieties and challenges of the several occupations. The program in technical education must provide viable vocational alternatives. The myth that college is the only road to success must be replaced by the sure knowledge that vocational-technical education can provide an equally attractive alternative. Then, the guidance counselor must carry on an aggressive program of vocational counseling and must guide students into areas where their abilities and talents will enable them to succeed.

## VI. THE PROGRAMS MUST BE STRENGTHENED THROUGH CURRICULUM REORGANIZATION AND THROUGH THE INTRODUCTION OF NEW INSTRUCTIONAL TECHNIQUES.

The old ways and methods of teaching are not adequate to meet the challenges of a changing technological world. The use of team teaching, media, experimental techniques, an approach based on concepts rather than facts, the organization of the curriculum around occupational clusters, will all serve to strengthen the curriculum.

## Recommended Exemplars - Technical Education

### MODEL

OBJECTIVES: The purpose of technical education is to train persons for employment as highly skilled technicians in recognized occupations requiring scientific knowledge and technical skill. It should provide a technical education and training for youth and adults who will be entering the labor force and to those who seek to upgrade their occupational competencies or to learn new skills. In addition, the program should achieve the following goals:

1. To provide comprehensive curricula which relates general and technical education offerings.
2. To provide increased accessibility to programs of occupational training.
3. To provide quality instructional programs compatible with employment opportunities.
4. To provide for the maximum utilization of administrative, supervisory, teacher education, research, guidance, and other personnel.
5. To provide a systematic and continuous evaluation of occupational training in terms of national and state interests, student benefit, and manpower requirements.

CONTENT: The content of the program is centered around a core consisting of technical mathematics, technical physics, and technical report writing. This core program provides a common basis for related programs in refrigeration technology, highway technology, and electronics technology. By taking the common core, the student develops the mathematical, science, and report writing skills that enable him to take only the specialty area when retraining is necessary.

One of the important aspects of the core oriented curriculum is that the hyphenated technologies, i.e., electro-chemical, electro-mechanical, and chemical-mechanical have no unique requirements of their own, but draw upon the technologies that contribute to their hyphenated titles. This in itself seems to suggest that it is not necessary to plan new and specific content courses for every technical position that occurs in industry, but that it will be possible to regroup existing offerings so as to contribute to the technician's ability to call upon the knowledge in basic or core areas.

By far the largest number of items included in the general core comes from the area of general engineering or engineering graphics, and these items are as follows:

1. Numerical control, data processing, interpretation of engineering drawings, depiction of data by manuscript, minimum dimensions in use of formulae, left data, translation, programming, and quality control.
2. Sketching forms from observation.
3. Machine elements and calculations in determining the size and shape of

various machine parts.

4. Preparation of block diagrams, schematics, and layouts.

5. AFA standards, the use of handbooks, graphical treatment of empirical data, conversion charts and monograms, graphical differentiation and integration, tolerance and limit dimensioning.

6. Projection and graphic representation including the use of instruments, lettering, applied geometry, and the like.

In the area of mathematics, there are three areas that express the general requirements across all technology. These are as follows:

1. Trigonometric functions and fundamental formulae.

2. Algebraic graphing, exponents, powers, roots, radicals, imaginary and complex numbers, and logarithms.

3. Metric system and square foot, plane and solid geometry, and general algebra.

In addition to these, the core program would include the use of simple test equipment, the use of measuring equipment in a system to measure or control the system, and environmental testing of components, parts, and products.

METHODOLOGY: The method of presenting technical subjects must be directed intelligently to a mature and highly motivated constituency. The techniques involved may include team teaching, the conceptual approach to occupational education, the use of a core curriculum and occupational courses, new uses of educational media, and experimental and demonstration programs. The programs should require and afford a maximum of student participation. It is especially important that emphasis be placed on audio and visual learning devices.

## PREVOCATIONAL YEARS

### Present Practices - Driver Education

Driver education is now an important curricular responsibility in most Nevada schools. The 1965 Legislature provided for special funding which enables school districts to develop and broaden their programs. Since that time, we have more than doubled the completion rate in Nevada schools. In the 1965-66 school year there were 6,834 eligible students. There were 2,387 completions, which indicates a completion rate of 34.9 percent. In the 1966-67 school year there were 7,137 eligible students with 3,064 completions, a completion rate of 42.9 percent. In the 1967-68 school year there were 7,483 eligible students and 3,564 completions, a rate of 47.6 percent.

As indicated above, enrollments in driver education have grown considerably. Of the forty-one high schools in Nevada, thirty-three offer driver education classes. High schools in the two larger counties have sizeable enrollment in the "classroom" phase of driver education; but due to scheduling of classes for required courses, many students cannot fit the "behind-the-wheel" phase of driver education into their programs. This scheduling program accounts for many not completing their courses and not becoming licensed drivers. These students are not counted in the completion figures. The benefit of the classroom phase of this education cannot be discredited, however, for it builds a foundation for good driving attitudes--respect and consideration of the responsibilities required as driver and pedestrian. Six thousand Nevada students received some part of the driver education program during the 1967-68 school year.

The quality of preparation of driver education teachers has been improved as the requirements for teaching have increased considerably in Nevada. In previous years, anyone could teach driver education; now a special certificate is required and one must complete a basic course in order to secure the necessary certificate. After successfully teaching driver education, the teacher must take an advance course in order to recertify under the Nevada Certification Standards.

## PREVOCATIONAL YEARS

### Emerging Mandates - Driver Education

I. NEVADA SCHOOLS MUST PROVIDE A COMPREHENSIVE DRIVER EDUCATION PROGRAM THAT WILL BE MADE AVAILABLE TO EVERY STUDENT.

Teachers and administrators must have the courage to initiate programs at this level that will develop responsibile driving attitudes conducive to proper driving techniques. We must take a stand to introduce some controversial subjects such as the drinking driver. All studies indicate that alcohol causes more than 50 percent of all single car fatalities; thus, driver education must bring this point to bear upon the genuine hazard of the drinking-driving problem.

II. DRIVER EDUCATION PROGRAMS MUST BE INITIATED WHERE NONE EXISTS AND IMPROVEMENT MUST BE MADE IN EXISTING PROGRAMS.

New and improved programs will help to insure that traffic death rates and the terrible carnage on our highways will be statistically reduced. It is imperative that all areas of traffic safety and driver education be taught and that programs be expanded from a 36 hour course to a semester unit. With all the facts and statistics available confronting us, disregard for traffic safety and driver education is most certainly inexcusable.

## PREVOCATIONAL YEARS

### Recommended Exemplars - Driver Education

MODEL

OBJECTIVES: Driver education must develop concepts which will influence the motoring public. The goal of all exemplary programs is not merely to place another licensed driver on the streets and highways, but to keep the immature driver from receiving a license.

CONTENT: The driver education program will include demonstration of stopping distances, various car maneuvers, smooth performance, proper signaling, and other practices that are invaluable to on-the-road skills. The heart of the driver education program will be the development of proper attitudes of courtesy and certain maturity, based on the knowledge of the implied danger and a sensible approach to driving an automobile. With the combined knowledge and skills of the smooth operation of the automobile and respect in observance of laws and courtesy to other drivers, graduates of comprehensive driver education courses will be able to merge upon our streets and highways with ease and mature confidence.

METHODOLOGY: Cooperation between schools and licensing agencies will be strengthened. The rules and regulations of the licensing bureaus will be observed and taught for proper observance of laws as they pertain to the operation of an automobile. Respect between teacher and examiner will be imperative.

A team approach to driver education is one which every school district will examine and the use of outside research people will be encouraged. Outside research people will bring expertise to the classroom for a number of pertinent topics.

The driver education program will include an adult program, along with the training of the out-of-school youth. Because facilities and equipment are needed to present a responsible program, the training of the errant driver will also be included in this time period.

## CAREER DEVELOPMENT YEARS

### An Introduction

Education in the career development years is designed to fulfill the vocational, educational, and general cultural needs of students from age 15 to 20 and beyond. The program encompasses specific vocational training in business, agriculture, health occupations, home economics, technical education, industrial arts, distributive education, and a general adult education. The program is designed to serve the needs of those in the upper high school and the immediate post high school years as well as the varied needs of adults.

This spectrum of the program includes initial vocational training and extensive retraining in the major vocational areas listed above. The importance of the program to the economic and cultural life of Nevada is difficult to calculate. Over a period of years, the overall program has enjoyed extensive support and has achieved an orderly growth. It occupies a unique position in education, business, and industry.

## CAREER DEVELOPMENT YEARS

### Present Practices - Career Development Education

Consistent with the purposes of the Vocational Education Act of 1963 (Public Law 88-210), vocational education in Nevada is attempting to serve the needs of the following persons: Secondary students who are in need of and desire to enroll in approved vocational courses; post-secondary students who have completed or left high school and who can study full-time in preparation for entering the labor market; adult students who are unemployed and/or who seek retraining because of being displaced from their jobs; adults who desire training supplemental to their employment in order to advance on the job; and persons who have academic, socio-economic or other handicaps which prevent them from succeeding in a regular program.

In planning vocational education programs, the following steps are usually taken:

1. Labor force surveys are conducted to determine job opportunities.

2. Representative advisory committees are formed and persons from business and industry are contacted for advice and assistance.

3. Course content is carefully identified and organized to insure that job requirements, whether skills or related technical knowledge, will be met.

Some additional current practices are as follows:

1. Programs are being developed to coordinate the traditional vocational services. As an example, Distributive Education and Home Economics Education are cooperating in a Fashion Merchandising program. Health Education Services and Home Economics Education are combining talents to develop programs to prepare Home Health Aides.

2. Cooperative education programs involving on-the-job training are a part of many vocational programs. Organized simulated-work experience is also provided by occupationally competent instructors in classrooms, shops, and laboratories and through special projects.

3. Short term programs are designed to prepare some secondary students for semi-skilled jobs. Emphasis is now being placed on training for groups or clusters of closely-related occupations.

4. More extensive pretechnical training is being provided to ready students for post-secondary education in more highly skilled craft and technician occupations.

Youth groups such as the Future Farmers of America, Vocational Industrial Clubs of America, and Future Homemakers of America effectively extend the curriculum beyond the classrooms and laboratories and into the communities, with emphasis on training for leadership and good citizenship.

Post-secondary programs are now being conducted in four types of institutions, three of which have been classified by the Nevada State Board of Vocational Education as Area Vocational-Technical Schools. They are Nevada Southern University at Las Vegas; the Southern Nevada Vocational-Technical Center; and the Nevada Community College at Elko. The University of Nevada at Reno is also conducting post-secondary programs at the Stead Campus.

Occupational information, counseling and guidance services are rapidly being expanded to assist students in making satisfying career choices. Career counseling services are available on a limited basis in several counties to serve adults who desire to enter or reenter the labor market or to up-date their present skills.

Cooperative working relationships are fostered and carried on with other services and agencies in order to meet the needs of those who desire and need training, to avoid overlapping and duplication of programs and services.

## CAREER DEVELOPMENT YEARS
## (Ages 15-20 and Beyond)

### Emerging Mandates - Career Development Education

In career development education certain pervasive mandates cut across the boundaries of specialization. These general statements of need should be considered as applicable to every vocational and technical area:

I. **THE MAJOR PURPOSE OF OCCUPATIONAL EDUCATION MUST BE TO MAKE APPROPRIATE OCCUPATIONAL TRAINING OPPORTUNITIES OF HIGH QUALITY READILY ACCESSIBLE TO PERSONS OF ALL AGES IN ALL COMMUNITIES OF THE STATE. TO THIS END, THERE MUST BE INCREASED EMPHASIS ON AND DEVELOPMENT OF POST-SECONDARY PROGRAMS.**

Rapid changes in technology in the world of work have caused many severe economic and social problems among the citizens of the state. Many of these problems can be prevented or corrected through the establishment of a statewide system of high-quality occupational programs designed to meet the needs of all persons in all age groups who need, want, and can profit from them.

Special emphasis must be placed upon the provision of vocational education opportunities for those who have socio-economic, educational, or other handicaps that prevent them from succeeding in regular vocational education programs.

II. **VOCATIONAL-TECHNICAL PROGRAMS MUST ASSIST IN THE ECONOMIC DEVELOPMENT OF THE STATE.**

Appropriate statewide occupational training programs must be established to meet total state labor-market trends and needs. These programs must provide a source of competent workers with occupational skills and technical knowledge needed for the complex labor market of today and of the future.

III. **ALL OCCUPATIONAL INSTRUCTION PROGRAMS MUST BE BASED UPON ACTUAL OR ANTICIPATED OPPORTUNITIES FOR JOBS FOR GRADUATES.**

The curriculum should be based on the skills and knowledge required in the occupations for which the students are trained, and must be developed and conducted through consultation with persons actively engaged in the occupations. The vocational instruction program in Nevada should combine and coordinate related instruction with field, shop, laboratory, cooperative work, or other occupational experience appropriate to the objectives in the curriculum. These combined experiences must be of sufficient duration to enable the student to develop competencies necessary for employment in the occupational field.

Emphasis should be given the constants or commonalities needed by the students in all curricula. To this end, all students must be taught that essential learning which does not become obsolete with change, such as how to learn, how to become actively engaged in lifelong learning, how to work with others, how to communicate, how to locate, organize, and evaluate information, and how to solve problems and think accordingly.

VI. EDUCATIONAL PROGRAMS AT THE SECONDARY LEVEL IN THE STATE OF NEVADA MUST BE MAINTAINED, EXTENDED, AND IMPROVED; AND NEW PROGRAMS MUST BE DEVELOPED TO MEET THE NEEDS OF STUDENTS IN VARIOUS OCCUPATIONS.

There must be an overall strengthening of the occupational programs through securing more occupational teachers who are adequately trained and by providing facilities capable of housing extensive occupational training for 50 to 80 percent of all of the high school students in the state. These students must be provided with entry skills and subsequent training in order that they be able to achieve the highest employment level possible according to their own potential. Provision of pre-technical training must be accelerated to enable students to prepare themselves for entry into post-secondary institutions for advanced technical training.

V. EXISTING ADULT PROGRAMS MUST BE MAINTAINED, IMPROVED, AND AUGMENTED.

Adults who are employed, unemployed, and underemployed must be afforded more opportunities to improve their occupational status. In order that post-secondary education receive the impetus needed, school boards should recognize and sponsor adult education as one of its primary functions.

VI. TEACHER EDUCATION MUST BE ENLARGED AND EXPANDED TO MEET THE NEEDS OF THE PUBLIC SCHOOLS FOR COMPETENT OCCUPATIONAL TEACHERS.

The teacher training programs for occupational instructors must be updated and upgraded in order that competent qualified instructors be available for Nevada's occupational education programs. To this end, teacher-educators must be deeply committed to preservice and in-service education.

VII. BECAUSE OF THE COMPLEXITY OF THE PROGRAM, THE PERSON CHARGED WITH THE ADMINISTRATION OF OCCUPATIONAL EDUCATION IN THE STATE DEPARTMENT OF EDUCATION MUST HAVE READY ACCESS TO THE SUPERINTENDENT OF PUBLIC INSTRUCTION AND TO THE NEVADA STATE BOARD FOR VOCATIONAL EDUCATION.

Consultation about and implementation of programs of fundamental importance must be quickly accomplished.

VIII. ALL OCCUPATIONAL TRAINING SHOULD RELATE WORK EXPERIENCE TO THE STUDENT'S OCCUPATIONAL OBJECTIVES.

Programs so designed will assist the student's development and will help create a meeting ground between school and job. Such programs might well include cooperative work, educational experience through work, regular part-time employment, financial assistance, simulated work experience in classrooms and laboratories, and work of social value to the community.

IX. THERE MUST BE GREATER VERTICAL ARTICULATION IN THE TOTAL PROGRAM.

Special emphasis must be given to articulation between secondary and post-secondary or two-year technical schools, so that each student can plan on educational programs and a meaningful sequence. The occupational-educational structure, therefore, within systems and between systems must be flexible and responsive.

X. OCCUPATIONAL GUIDANCE AND COUNSELING SERVICES MUST BE STRENGTHENED.

All individuals must be assisted to make meaningful career choices. Greater coordination must be established between the occupational counselor and the occupational teacher to better enable the great majority of young people to be satisfied with their career choices.

XI. VOCATIONAL EDUCATORS MUST ACCEPT JOINT RESPONSIBILITY FOR EMPLOYMENT SERVICE FOR DROPOUTS AS WELL AS FOR THOSE WHO COMPLETE TRAINING.

The most effective placement is accomplished by the training institution. However, close cooperation and coordination with the employment service is essential in the light of available job opportunities.

XII. HIGH SCHOOLS OF ABOUT 300 STUDENTS OR LESS MUST FIND A NEW APPROACH FOR PROVIDING OCCUPATIONAL EDUCATION.

Historically, small high schools have rarely been able to provide enough varied occupational courses to meet the needs of their students. Where such schools cannot be consolidated, districts should provide unified occupational courses, taught by a limited, carefully selected staff. This would require substantial redesigning of buildings and facilities to accommodate courses related to agriculture, construction, transportation, mining, general business, and government employment in land and wildlife agencies. Clusters of occupational areas might well be established in such related fields.

XIII. A COORDINATED PROGRAM MUST BE DEVELOPED TO PREVENT FRAGMENTATION OF THE VOCATIONAL OFFERINGS.

In the small high schools, all of the occupational work experience programs should be coordinated and supervised by one or two individuals because of the limited work opportunities for students.

All of the public school facilities in the State of Nevada should be utilized to their maximum in the development and operation of occupational programs. Use of facilities for extended-day and extended-year programs should be an accepted practice.

Districts should consider the establishment of residential schools for students whose communities cannot provide adequate occupational programs.

XIV. ADEQUATE OCCUPATIONAL EDUCATION AT ALL LEVELS MUST BE SUPPORTED BY SUBSTANTIAL FINANCING TO ASSURE MODERN FACILITIES, AND COMPETENT TEACHERS, COUNSELORS, AND ADMINISTRATORS.

## CAREER DEVELOPMENT YEARS

### Present Practices - Occupational Guidance

The emphasis and focus in the occupational guidance program is upon educational and occupational decisions based upon career interest, aptitude and occupational inventory, scholastic achievement, and evaluation and counseling procedures. The object is to develop career entry skills and a corresponding sense of values which will help students to accept their work environment and help them to assume economic and civic responsibility. Educational and occupational placement allowing for career induction and work experience, at least on a part-time basis, is beneficial in the student's adjustment to life and to his work.

There are four post-secondary adult education programs operating in Clark and Washoe Counties endeavoring to provide occupational guidance and education at the post-secondary level.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Occupational Guidance

I. **THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD ASSUME THE RESPONSIBILITY FOR PROVIDING INFORMATIONAL RESOURCES PERTINENT TO THE VARIOUS PROGRAMS OF CONTINUING EDUCATION.**

Occupational guidance programs can integrate program university or college, junior college, industrial or other in-service training programs directly into the individual student's plans. They can serve as an effective liaison between the individual adult student and the institution or agency in developing opportunities for the student to continue the educative process regardless of age or employment status. Indices providing a basis for such counseling and liaison techniques to insure continuing education opportunities are provided by work role identification inventories and by student-parent aspirational level inventories. These should be on file in the cumulative file of each individual student. The development of functional relationships with residential school centers, community college resources, and all other community education resources can facilitate the program of continuing education by providing a direct channel for the individual student.

II. **THE OCCUPATIONAL GUIDANCE PROGRAM SHOULD BROADEN ITS ACTIVITIES TO PROFFER COOPERATIVE EDUCATION OPPORTUNITIES TO ALL STUDENTS.**

The development of a broad program of cooperative education (such as the Illinois Cooperative Education Plan) which integrates academic and occupational interests, also facilitates the realization of continuing education for all inindividuals. Students interested in continuing their education should be assisted in gaining entrance to institutions of higher education and in obtaining financial aid.

Research indicates that the most successful public and private occupational programs are those which assume responsibility for placing their graduates; therefore, acceptance by vocational educators of joint responsibility with the employment service for the placement of youth and adults should be expanded. Curriculums in all areas should be constructed to enable each student to learn about the world of work at higher and higher levels of specificity as he proceeds through school.

Combining the residential-school concept with the cooperative-education concept is the community college concept in which the student can prepare for any level of proficiency up to and exceeding the baccalaureate degree. Students can discontinue their participation in the four year residential school programs at any level. For example, they can earn certificates, associate degrees, B.A.'s, and by transferring to an established institution of formal education, M.A.'s or PH. D.'s.

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Occupational Guidance

### MODEL

OBJECTIVES: The program of occupational guidance is designed to serve as an effective liaison between the individual student and the institution in developing opportunities to continue the educative process regardless of age or employment status. Occupational guidance procedures can plan university or college, junior college, industrial, or other in-service training programs to fit the needs of the individual student.

CONTENT: Indices providing a basis for such counseling and liaison techniques are provided by work-role identification inventories and by student-parental aspirational level inventories. These should be on file in the cumulative file of each student. Relationships with residential-school centers, community colleges and all other community-education resources can facilitate continuing education by providing articulation for the student.

METHODOLOGY: The development of a broad program of cooperative-educational experiences which integrate academic and occupational interests can facilitate continuing education for all individuals. The community college, for example, combines the residential-school concept with the cooperative-education concept in which the student may prepare for any level of proficiency up to and exceeding the baccalaureate degree. The integration of academic and specific occupational programs will provide the benefits of continuing education, financial support for the student during the degree-earning years, and increase sophistication of career preparation in the four-year-residential school programs at any level. For example, students may earn certificates, associate degrees, bachelor's degrees, and by transferring to an established graduate institution they may seek master's degrees or doctorates.

## CAREER DEVELOPMENT YEARS

### Present Practices - Health Occupations Education

At the present, there is a high degree of concentration and activity in health occupations education. Students are increasingly interested as a result of information received in secondary education, however minimal, and because work in health occupations challenges them. At the post-secondary level the programs prepare individuals for gainful employment for associate arts degree and certification. Post-secondary programs also provide for retraining individuals and for upgrading learning experiences. In addition to helping students acquire specific skills, programs focused upon helping students acquire personal satisfaction.

Present practices include preparatory and extension courses which are offered to help the employed and unemployed members of the community, emphasizing the acquisition and development of skills and technical knowledge. Present practices also include special training programs designed for those individuals with physical, cultural and educational, or socio-economic handicaps. Present training programs include preparation for work in the following para-medical fields: Nurse's aide or orderly, home health aide, practical nurse, surgical technician, medical assistant, or for receiving an associate arts degree in nursing and X-ray technology. These programs are conducted on a statewide basis and serve the following communities: Reno, Carson City, Yerington, Fallon, Winnemucca, Battle Mountain, Elko, and Las Vegas.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Health Occupations Education

I. AN ANALYSIS OF PRESENT TRENDS INDICATES THAT CONTINUING EDUCATION MUST RECEIVE INCREASING ATTENTION AS A LIFE HABIT.

In order to make programs of continuing education accessible to a greater number of people, more flexibility of scheduling predicated upon the needs of a variety of students must be developed.

II. A STRONGER RELATIONSHIP MUST BE DEVELOPED BETWEEN EDUCATIONAL GROUPS, MEDICAL AND PARA-MEDICAL GROUPS.

The total endeavor will then be characterized by an integration of efforts to meet the objective of developing health care by teams. Program expansion must be provided in order to develop a solid relationship between education and medical, and para-medical personnel.

III. CONTINUING EDUCATION MUST BE ORGANIZED IN A VARIETY OF WAYS IN ORDER TO PROVIDE A NUMBER OF STUDENT-ORIENTED COURSES.

Programs should also include training for dental assistants, medical records assistants, laboratory technician assistants, physical therapy assistants, occupational therapy assistants, inhalation therapy assistants, medical equipment technicians and medical data processing technicians. Proficiencies in the occupations listed will serve to facilitate the work of the health team and strengthen relations between the educational, medical and para-medical personnel.

## CAREER DEVELOPMENT YEARS

### Recommended Exemplars - Health Occupations Education

MODEL

OBJECTIVES: Areas of specialization reflecting a varied degree of sophistication are possible. However, the core curricula and health occupations center approach should provide the basic organizational and functional premises of operation.

CONTENT: The center approach should include cooperative education assignments, in-service training, community residential college programs, additional pre-employment programs focusing on the single-skill occupations, evening and extension programs, and supplementary and apprenticeship programs.

METHODOLOGY: Flexibility in scheduling is one way in which objectives can be met. For example, in a residential school where students are organized into two tracts or groups, it is possible for the student to receive maximum benefits from courses and from school plant facilities--while one group of students is engaged in the classroom or on-campus training activities, the other group of students is pursuing cooperative work assignments in the field. When the second group has finished with cooperative work experiences, students return to the campus and the first group goes out to pursue work experiences. In this way, the school physical plant accommodates double the number of students, individual students realize financial benefit, assisting themselves through school while receiving educational experiences.

## CAREER DEVELOPMENT YEARS

### Present Practices - Office Occupations Education

Office occupations education is a program designed to provide the trained manpower required to meet local, State, and national needs for office workers. It is part of a larger program of vocational education, which is balanced in relationship to the local, State, and national employment structure.

Office occupations education serves and prepares students for job competency and success, providing them with the training and skills necessary for entry-level occupational employment. It serves the office training needs of high school students as well as students who have completed or left high school, who have entered the labor market, and who need training or retraining. It serves the needs of those persons with special educational disadvantages caused by economic, geographic, physical, and/or social factors. Office occupations education is designed to meet realistically the job opportunities, manpower requirements, and emerging occupations of the business community.

There are basic elements common to any office occupations training program. The educational cycle for office occupations begins with an analysis of the occupation. From this, the occupation is described in behavioral terms and then translated into educational procedures in and out of the school, comprising planned learning experiences and realistic opportunities to use skills and knowledge. The program provides for placement in the world of work and then is evaluated on the basis of success on the job.

The success of the instructional program in business and office education is greatly influenced by the physical area in which it is taught and by the equipment available for instructional purposes.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Office Occupations Education

I. **FULL-TIME TRAINING PROGRAMS, WHICH REQUIRE NO SPECIALIZED STUDIES, SHOULD BE OFFERED IN HIGH SCHOOLS, POST-SECONDARY SCHOOLS, AREA SCHOOLS AND SPECIAL SCHOOLS.**

Since there is a great deal of and an ever-increasing demand for office workers at all levels of employment, it is essential that we provide opportunities for training which meet the needs of students and the needs of the labor market.

II. **A VARIETY OF SOURCES FOR REMEDIAL WORK SHOULD BE MADE AVAILABLE FOR TRAINEES WHO NEED IT IN ORDER TO PROFIT FROM THE REGULAR PROGRAM.**

Many handicapped students make excellent office employees, but in order for them to succeed in their training and on the job, it is essential that appropriate remedial training be made available both on an individual and on a group basis.

III. **PROGRAMS WHICH REQUIRE ELECTIVE OR SPECIALIZED STUDIES SHOULD ORIGINATE IN THE HIGH SCHOOL AND BE CONTINUED IN THE POST-SECONDARY SCHOOL WHERE THE TRAINEES' SPECIALIZED SKILLS AND KNOWLEDGES MAY BE DEVELOPED.**

Such skills are essential in that they provide the student with the advanced occupational training essential for many employment opportunities.

IV. **PROVISION FOR RELEVANT WORK EXPERIENCE PROGRAMS AS RELATED TO FULL- OR PART-TIME TRAINING SHOULD BE MADE BY EACH LOCAL EDUCATIONAL AGENCY.**

These programs should be supported by placement of the office student and his progress should be followed.

V. **SPECIAL PART-TIME PROGRAMS SHOULD BE ORGANIZED IN HIGH SCHOOLS OR POST-SECONDARY SCHOOLS TO SUIT THE NEEDS OF TRAINEES.**

Such programs should be sufficiently intensive to meet identified employment standards.

VI. **AS IN THE PART-TIME PROGRAMS, UNITS OF STUDY SHOULD BE SELECTED TO MEET THE NEEDS OF ADULTS WHO WISH TO REFRESH OR UPGRADE THEIR SKILLS.**

Since the world of work prevents an ever-changing picture, it is essential that occupational education opportunities be provided for any adult who needs additional training to compete in the labor market.

VII. **COUNSELORS SHOULD MAKE CAREFUL ASSESSMENT OF THE TRAINEES CLAIMED PROFICIENCY AND EXPERIENCES BEFORE SUGGESTING A COURSE OF STUDY.**

This assessment is an essential part of the office occupations program and should be implemented at all levels--secondary, post-secondary and adult.

VIII. **FULL-TIME PROGRAMS SHOULD BE DEVELOPED FOR TRAINEES QUALIFYING UNDER THE MANPOWER DEVELOPMENT AND TRAINING ACT.**

The Act provides for refresher and upgrading training; the programs may be tailored to meet a variety of occupational needs.

# CAREER DEVELOPMENT YEARS

## Emerging Mandates - Office Occupations Education

## Clerical Typing Program

### I. CLERICAL TYPING PROGRAMS MUST BE DEVELOPED TO MEET THE DEMANDS FOR ADDITIONAL EMPLOYMENT.

Employment in clerical occupations is expected to increase very rapidly during the next decade. As employment increases to meet the needs of an expanding economy, it is anticipated that more than 300,000 new positions in clerical and related occupations will be added each year. And an even greater number of clerical workers will be needed each year to replace those who retire or leave their jobs. Employee turnover is especially high among clerical workers because many young women work for only a few years and then leave their jobs to remain at home and care for their families.

### II. CLERICAL PROGRAMS MUST BE DEVELOPED TO MEET THE DEMAND FOR RELATED EMPLOYMENT OPPORTUNITIES.

The number of clerical and related jobs is expected to increase mainly because the volume of paperwork will undoubtedly increase as business organizations grow in size and complexity. On the other hand, more and more mechanical equipment undoubtedly will be used to speed the process of keeping business records. In some offices, particularly in large cities, the number of clerical employees may be reduced. As a whole, however, the new positions created by growth are expected to outnumber the clerical jobs eliminated by mechanization. Furthermore, many types of clerical are unlikely to be materially affected by mechanization.

### III. CLERICAL TYPING PROGRAMS MUST BE DEVELOPED TO MEET THE DEMANDS CREATED BY AUTOMATION FOR OPERATIONAL SKILLS.

Since electronic computers, bookkeeping, and calculating machines, and other mechanical devises are used in offices mainly to process repetitive work, their use can be expected to bring about reductions in the numbers of clerks employed to prepare payrolls, keep track of inventories, bill customers, sort checks, and do other routine work. But, as work of this kind is transferred from clerks to machines, a limited number of new positions requiring machine operators will be created. This shift in type of necessary clerical personnel will probably occur chiefly in large business firms and in the metropolitan areas, where such firms tend to be concentrated.

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Office Occupations Education

### MODEL I: The Clerical Typing Program

OBJECTIVES: The preparation for entry-level positions seeks to accomplish the following objectives: To provide the student with the understanding, knowledge, skills, and attitudes necessary to obtain a job in the clerical occupations and to advance to jobs or positions with higher levels of responsibility. To provide the student with the necessary understanding, knowledge, and attitudes to permit him to adapt readily to rapid changes in job requirements and duties in the clerical occupations; to provide students with sufficient job skills of a clerical nature to permit accepting employment in business for short periods of time or as part-time workers; to provide students with a knowledge of job opportunities and job requirements--the advantages and disadvantages of employment in clerical occupations; to provide students with knowledge of human relations--skills and attitudes necessary to get along with others in job situations; to provide students with opportunities to refine basic skills in communications.

CONTENT: Because this program must meet the needs of many individuals undecided about their goals and must also lead them to employment in changing occupational patterns, the sequence seeks to develop in the trainee a variety of skills. The following topics are suggested for the basic clerical/typist program:

#### Basic Topics--

1. Basic Business
2. Business Communications
3. Business Machines
4. Business Mathematics
5. Record Keeping
6. Typing

#### Supplementary Units to be Integrated into Basic Cluster or Taught Separately--

1. Business Economics
2. Computer Arithmetic
3. Duplicating
4. Filing
5. Introduction to Data Processing
6. Occupational Information
7. Personal Development

#### Elective Units and Special Training Units--

1. Advanced Filing
2. Bookkeeping
3. Business Economics
4. Business Law
5. Data Processing
6. Key Punch
7. Typing Laboratory
8. Relevant Work Experience

The fulfillment of some basic requirements by the learner before the career development years will have three distinct advantages: (1) It will enable him to choose more electives later, and thus develop more employment skills. (2) It will enable him to participate more fully in cooperative office education and thus learn more through invaluable business experience. (3) It will enable him to seek earlier employment and thus become self-sufficient more quickly.

METHODOLOGY: Full-time programs which do not require any specialized studies may be offered in the secondary schools, post-secondary, and specialized schools. A variety of sources for remedial work will be made available for trainees who require such training to profit from the regular program.

Programs which require elective or specialized studies may originate in the high school and be continued into the post-secondary program.

Provision will be made for relevant work experience projects. Special part-time programs will be organized. Skill and knowledge units will be selected to meet the needs of adults who wish to refresh or upgrade their skills. Careful assessment by counselors will be made before courses of study are suggested. Full-time programs will be used for trainees qualifying under the Manpower Development and Training Act.

The use of block time is recommended for the clerical/typing program. The block time may not be limited to a particular portion of the school day. The program will take into account the advantages of having a continuous block of time so that program becomes more flexible. Units of training will be developed separately, although aspects of one subject or unit could and possibly will be integrated with aspects of other subjects or units.

This program will provide for approximately 900 clock hours of business and office education in sequence or in combination. In this program there will be two or three hour blocks of time in order to provide flexibility for teacher planning and preparation.

Programs of directed, simulated, or cooperative office education will be included. Although there are no business prerequisites, business exploration may be taken during the prevocational years.

The trainees will also fulfill requirements in basic general business, business mathematics, and typing before beginning an intensive training program.

Scheduling for the sequence in the block time intensive training necessitates close cooperation between business educators, school administrators, and counselors at different educational levels.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Office Occupations Education

### Stenographic-Secretarial Program

I. **SECRETARIAL TRAINING SHOULD NOT BE LIMITED IN SCOPE, BUT RATHER INCLUDE A BROAD RANGE OF KNOWLEDGES AS WELL AS SKILLS.**

Comprehensive preparation to insure versatility is needed to meet the varied and more complex needs of the business community.

II. **THERE MUST BE A CONSTANT UPGRADING OF PREPARATION FOR ENTRY-LEVEL SECRETARIAL-STENOGRAPHIC POSITIONS.**

The changing patterns of job opportunities, the increasing demand for greater secretarial and stenographic skills, and the increased social and personal competency required in the office mandates such as upgrading.

III. **THE PREPARATION FOR ENTRY-LEVEL STENOGRAPHIC POSITIONS MUST BE CLOSELY RELATED TO THE COMMUNITY'S MARKET FOR EMPLOYEES.**

The needs of the business community should be a guide for establishing resources to insure adequate preparation for individuals seeking employment.

IV. **PERIODIC VOCATIONAL EDUCATION SURVEYS SHOULD BE CONDUCTED.**

Such surveys will serve to determine the kinds of office positions available and the kind and level of preparation which secretarial/stenographic positions require.

## CAREER DEVELOPMENT YEARS

### Recommended Exemplars - Office Occupations Education

### MODEL I: The Stenographic/Secretarial Program

OBJECTIVES: The objectives of preparation for entry-level stenographic positions are: (1) To provide in-depth training in stenographic skills. (2) To develop a mastery of standard usage, spelling, and punctuation. (3) To develop the ability to communicate effectively. (4) To develop a general understanding of the American business and economics system. (5) To develop an understanding of the proper personal conduct and personal appearance for the business office. (6) To develop responsibility, dependability, enthusiasm, initiative, resourcefulness, interest, and loyalty. (7) To develop an understanding of the level of efficiency required for the successful performance of stenographic duties. (8) To develop an understanding of effective human relations. (9) To develop an understanding of how to adapt to changing work situations. (10) To develop an understanding of the necessity for constantly upgrading stenographic knowledge and skills.

CONTENT: The following topics for study will be included in a basic stenographic/secretarial program. The following courses will be completed by all students to meet the minimum training necessary for employment: (1) Basic Accounting (2) Business Communications (3) Business Economics (4) Business Law (5) Business Machines (6) Business Mathematics (7) Shorthand and Transcription (8) Typing.

Supplementary work in the following may be integrated into the basic cluster or taught in separate units: (1) Accelerated Reading (2) Duplicating (3) Filing (4) Introduction to Data Processing (5) Occupational Information (6) Personal Development (7) Relevant Work Experiences.

Other special areas that may be taught in the post-secondary area schools to fulfill local needs may be devised and implemented so long as the school administrators and employers of the area believe the results are justified.

METHODOLOGY: Full-time programs, which require no specialized study will be offered in high schools, post-secondary, special schools. A variety of sources for remedial work will be available for trainees who require it. Other specialized skills will be offered in post-secondary schools, area schools, or community colleges. Provision will be made for relevant work-experience projects. Special part-time programs will be organized. Units of study will be selected to meet the needs of adults who wish to refresh or upgrade their skills. Assessment by counselors will be made of the trainees' claimed proficiencies before suggesting a course of study. Full-time programs will be used for trainees qualifying under the Manpower Development and Training Act. The use of block-time for the secretarial/stenographic program will be utilized. The block-time concept will not be limited to any particular portion of the school day. Experimentation has proved that there are definite advantageous to having time available for the program scheduled in a continuous block. Provision will be made for approximately 1,080 clock hours of business and office education courses in sequence or in combination. A one-half-day block of time will provide flexibility for teacher planning and preparation. The program will be offered on a in-school basis and will be directed to those who need depth training in stenography but who cannot enroll in cooperative-office education. Simulated office education will be included. Two one-year courses in business and office education will be required as prerequisites. In the stenographic program one of these must be typewriting. Other typical prerequisites will be general basic education, business mathematics, and business exploration.

# CAREER DEVELOPMENT YEARS

## Emerging Mandates - Office Occupations Education

## Business and Office Management Program

I. **PROGRAMS IN POST-SECONDARY SCHOOLS, SUPPLEMENTING THE HIGH SCHOOL PROGRAM, MUST SERVE TO ACCELERATE THE CANDIDATE'S PROGRESS TOWARDS A MANAGEMENT OR OWNERSHIP POSITION.**

High school graduates who have had on-the-job experience may fill some positions requiring limited managerial responsibilities; however, positions with the highest potentials for rapid advancement usually demand more education and training. A two- or four-year degree is necessary in some areas for initial employment, and after satisfactory work experience, the employee may be in line for a managerial position. Assistance managerships in chain or syndicated enterprises provide opportunities for on-the-job promotions to managerships in large stores or service stations.

II. **COURSES IN BUSINESS AND OFFICE MANAGEMENT MUST OFFER THE ADVANCED LEARNING OPPORTUNITY OF A "PROBLEM SOLVING" NATURE THAT WILL LEAD STUDENTS TOWARD THEIR OBJECTIVE IN MANAGEMENT AND LEAVE THE DOOR OPEN FOR FUTURE ADVANCEMENT.**

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Office Occupations Education

### MODEL I: The Business and Office Management Program

OBJECTIVES: The preparation seeks to accomplish the following objectives: To provide the student with understanding, knowledge, attitudes necessary to be successful in obtaining a job and in advancing to positions with higher levels of responsibility. To provide the student with necessary understanding, knowledge, and attitudes that will permit him to adapt readily to the rapid changes in job requirements and duties. To provide the student with knowledge of human relations and attitudes necessary in cooperating with other persons in job situations. To develop in the student understanding, knowledge, and attitudes that are necessary for leadership in his business and community responsibilities. To develop the necessary background of subject matter to enable a person to enter a college or university with reasonable assurance that he can succeed in his advanced studies.

CONTENT: The following list identifies the various educational units of study needed to help the student reach his objective in business and office management:

Topic:

- Accounting
- American government
- American History
- Basic business understandings
- Business economics
- Business law
- Business machines (includes typing)
- Communications (includes public speaking)
- Data processing
- English
- Marketing
- Mathematics
- Office procedures and management
- Personnel management
- Psychology of human relations
- Public relations
- Science
- Social studies
- Electives in special fields such as: Accounting, Marketing, Insurance, Real Estate (job entry training)
- Humanities

METHODOLOGY: Full-time programs may be offered in post-secondary, and special schools. A variety of sources for remedial work should be made available for trainees who require remedial training in order to profit from the regular program. Programs may originate in the high school and be continued in the post-secondary school where the trainee's specialized skills and knowledge can be developed. The educational units suggested may be completed in two years, prreferably in the thirteenth and fourteenth grades. The learner then capable of employment may enter the labor market or continue his education in a college or university.

Since the curricula are unitized, special part-time programs can be organized in high schools or post-secondary schools to suit the needs of trainees. Such programs should be sufficiently intensive to meet employment standards and recommended achievement levels.

Similar to the part-time programs, the skill and knowledge units can be selected to meet the needs of adults who wish to refresh or upgrade their skills. Careful assessment by counselors should be made of the trainee's claimed proficiencies and experience before suggesting a course of study. In-service training units can be coordinated with on-the-job training through the cooperation of educators and a business advisory council.

Several of the suggested full-time programs can be used for trainees qualifying under the Manpower Development and Training Act. Because the Act provides for refresher courses and for upgrading training, the programs can be tailored to meet a variety of trainee needs as previously stated.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Office Occupations Education

### The Automated Data Processing Program

I. **BUSINESS EDUCATORS IN THE STATE MUST CONTINUALLY EVALUATE THROUGH SURVEY AND FOLLOW-UP THE NECESSITY FOR INITIATING AN AUTOMATED DATA PROCESSING COURSE AT THE CAREER DEVELOPMENT LEVEL.**

Such surveys and follow-up are necessary because the achievements of automated data processing continually change our lives, both as employees and consumers.

II. **A COMMUNITY COLLEGE IS RECOMMENDED AS THE MOST LIKELY PLACE TO TEACH A COMPLETE COURSE OF STUDY FOR AUTOMATED DATA PROCESSING.**

The community college is selected for this program because of its place in the educational sequences, its ability to obtain proper financing, and its closeness to the business community. However, where community colleges do not exist or where funds are more available for secondary and other post-secondary education facilities, these schools must fill the void.

III. **SOME FORM OF COMPLETE COURSE SEQUENCE IN AUTOMATED DATA PROCESSING MUST BE DEVELOPED FOR THE COMPREHENSIVE AND TECHNICAL HIGH SCHOOLS.**

If a complete course of study is not established, pertinent subjects in automated data processing should be taught. If such courses are not feasible or desirable, a unit on data processing can be incorporated into existing courses.

337/338

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Office Occupations Education

### MODEL I: The Automated Data Processing Program:

OBJECTIVES: Programs in data processing will respond through appropriate educational media and technology to the continuous changes brought about by the achievements of data processing. Programs will respond to both the needs of consumers and employees.

CONTENT: A unit on data processing in existing courses: In the beginning, students should help gather a file of information about data processing. Whether the school has data processing equipment or not, whether the community has local businesses which use data processing systems, it must be recognized that data processing does exist in increasing thousands of offices. Recognizing this fact, units which relate to data processing will be presented in our existing classes. The following are example units:

I. Bookkeeping

  A. Checks and bank statements
  B. Statements
  C. Merchandise tags

II. Filing

III. Shorthand

IV. Law

  A. Punch cards for recording auto-license information
  B. FBI Records
  C. Camera computer setups for traffic check points

V. Business mathematics

  A. Payroll
  B. Property tax systems

VI. Typing

VII. Business Machines

VIII. Office Practice

A one semester introduction to data processing course: The course will attract both business students and college-bound science students. It can be team-taught by two teachers--one business teacher and one for mathematics or science. The basic theory of data processing will be explained during the first nine week session. During the second nine week session, the class may be broken into two sections. Business students would progress with their business teacher into topics related to business data processing and systems. The other member of the teaching team will lead his group to consider scientific application of computer technology. The course will include the following topics or units:

I. Development of records' systems

II. The need for automated data processing systems

III. Major uses of data processing

IV. Data handling

V. Electrical-Mechanical Machines

VI. Computer systems

VII. The data processing department

VIII. Advanced training in data processing

Single subject offerings as needed:

I. Key Punch course

Many of us doubt that key punch machines will be replaced by alternate machines within the foreseeable future. There are many new and superior systems on the market creating materials which may be introduced directly into data processing equipment, without keypunching. Because of cost and other factors, however, we can expect to see key punch machines used in business for years to come. Training too many individuals for the labor market can be avoided by careful job research and close liaison with local data processing installation managers.

II. Tab equipment course

Because of the significant investment of money in the lease of equipment, the tab equipment course needs to be instituted, as do all complex data processing courses, only after research justifies it. Several degrees of proficiency are necessary for operators, programmers, and supervisors responsible for developing the systems.

III. Tab equipment orientation course.

It is possible to establish a familiarization course in tab equipment without any equipment. The half semester course covers basically the same areas as the two semester course, but does not go into depth. It would be advantageous for students to have had at least one semester of bookkeeping prior to taking this course.

IV. A complete course of study for computer programmer

Most of the secondary and post-secondary computer program courses across the country have based their instruction on the pattern established by Orange Coast Junior College, Costa Mesa, California. Sometimes there are not enough students to justify such programs. In other cases, the school situation may be ideal, but there are few jobs available. The very real objection to a three-year program such as the one that follows is that electing liberal arts courses is limited, even impossible.

Another problem which must be faced honestly is whether local and regional data processing departments will hire eighteen year old programmers. The following sequence of courses can be justified only in a unique situation in which funds are available under various new Federal laws. Experience indicates that students should be block scheduled for the most efficient use of time.

I. Computer programming (first year)

   A. Bookkeeping
   B. Typing
   C. Electrical-Mechanical Machines
   D. Basic Computing Machines
   E. Business Organization
   F. Bookkeeping

II. Computer Programming (second year)

   A. Intermediate Programming
   B. Accounting I
   C. Advanced Computer Problems
   D. Systems Development and Design I
   E. Accounting II
   F. Human Relations

III. Computer Programming (third year)

   A. Management Accounting
   B. Advanced Computing and Programming Systems
   C. Communications' Skills
   D. Business Simulation

METHODOLOGY: Full-time programs may be offered on the secondary or post-secondary levels with emphasis on training computer programmers in the community college or area school. Special part-time programs may be organized in the secondary or post-secondary school to meet the individual needs of trainees.

Adults hope to "re-tool" in order to take advantage of the expanding opportunities in data processing. During the initial research, prior to establishing any type of data processing-instructional programs, it would be wise to find what potential there is for the establishment of adult evening classes. Cooperation with local business establishments is essential to decide whether or not a need exists for either a prevocational school program or for an adult career-development program or both, and then to determine how to utilize equipment and instructors available from the business community, and to provide for in-service training for career teachers.

Full-time programs may be used for trainees qualifying under the Manpower Development and Training Act. Because the Act provides for refresher courses and for upgrading training, the programs may be tailored to meet a variety of trainee needs.

## CAREER DEVELOPMENT YEARS

## Emerging Mandates - Office Occupations Education

## The Computing-Accounting Program

I. **HIGH SCHOOL BOOKKEEPING AND ACCOUNTING SHOULD BE UPGRADED.**

Because of the growing demands in business organizations for persons who have competency in accounting, students should be given an opportunity to study partnership recording and corporation reporting as well as numerical-account classification, cost accounting, manufacturing reports, financial-statement analysis, budgeting, and internal reporting.

II. **BOOKKEEPING AND ACCOUNTING STUDENTS SHOULD BE ENCOURAGED TO TAKE AS MUCH MATHEMATICS AS IS AVAILABLE TO THEM IN HIGH SCHOOL.**

The increasing application of mathematical techniques to the solution of management problems makes such requirements important.

III. **SCHOOLS SHOULD OFFER PUNCH CARD ACCOUNTING AS AN INTEGRAL PART OF THE ACCOUNTING COURSE.**

Instruction may be given about magnetic ink characters used for automative sorting and posting of business papers and about conventional office machines with punch paper tape used to capture information, which can be printed out in journal entry form.

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Office Occupations Education

### MODEL I: The Computing/Accounting Program

OBJECTIVES: To provide students with the understandings, knowledge, attitudes, and skills that will enable them to enter employment as bookkeepers or in occupations that require bookkeeping procedures, and to qualify for advancement in these occupations.

To provide students with an understanding of how business is organized, how it operates, and how it functions in our economy. To provide students with understanding serving as an introduction to the field of accounting.

To provide students with information about careers in bookkeeping and accounting.

To provide students with an understanding of the systematic flow of financial information in a business office and the machines and equipment that facilitate this flow.

To provide students with opportunities for making decisions about the operation of a business through the use of data from financial statements.

These objectives take into account the current trends in keeping records and recognize that an increasing number of records will be made by the use of electronic equipment.

CONTENT: The following topics for study are suggested for the basic computing/accounting program. This sequence will be completed by all students who desire the minimum training necessary for employment. Students will receive a recognized certificate of completion after fulfilling these requirements. Although usually pursued during the last two years of high school, the program may be completed in post-secondary or special schools.

Basic Accounting
Basic Business Understandings
Business Communications
Business Economics
Business Law
Business Machines
Business Mathematics
Computer Arithmetic
Data Processing Understandings
Filing
Occupational Information
Personal Development
Posting Machine Operations
Typing

In addition to the basic program, some trainees will need to continue their studies for specialization in given fields. This training can be a part of the secondary program or continued in post-secondary or area schools. The following illustrates the topics of study that trainees may pursue for special employment goals. (See next page)

| Topic for Additional Study | Employment Goal: Bookkeeper | ADP Equipment Oper. | Billing Machine Operator | Computing Machine Operator | Account Recording Machine Operator | Computing and Account Recording Occupations | Supervisors | Managers |
|---|---|---|---|---|---|---|---|---|
| Accounting | X | | | | | | X | X |
| Computer Programming | | | | | | | X | X |
| Data Processing | | X | | X | | | X | |
| Filing | | X | | | | X | X | X |
| Key Punch | | X | | X | | | | |
| Record Keeping | | X | X | X | | | | |
| Typing | | X | X | X | | X | X | X |

METHODOLOGY: Full-time programs, which require no specialized studies, will be offered in high schools, post-secondary, and special schools. A variety of sources for remedial work should be made available for trainees who require remedial training in order to profit from the regular program.

Programs that require elective or specialized studies, such as advanced accounting, computer programming, or office administration, may originate in high school and be continued in the post-secondary school, where the trainee's specialized skills and knowledge can be developed. These specialized skills may be offered in area schools and community or junior colleges.

Provision for relevant-work experience will be made by each local educational agency.

Special part-time programs will be organized in high schools or post-secondary schools to suit the needs of trainees. As in the part-time programs, units of study will be selected to meet the needs of adults who wish to refresh or upgrade their skills. Careful assessment by counselors should be made of the trainee's claimed proficiencies and experience before suggesting a course of study.

Full-time programs will be used for trainees qualifying under the Manpower Development and Training Act. Because the Act provides for refresher and upgrading training, the programs may be tailored to meet a variety of trainee needs.

The use of blocked time is recommended for the computing/accounting program.

The block of time need not be in the afternoon if some other part of the day fits the schedule of the school better. The advantage of having a continuous block of time is that the program becomes more flexible. On a given day, it may be highly desirable to have a long period of time given to one type of activity. The time thus "borrowed" from other types of activities can be "paid back" later in the week.

Although different subject matter areas for the program will be developed separately, aspects of one subject could and should be integrated with aspects of other subjects.

## CAREER DEVELOPMENT YEARS

### Present Practices - Office Occupations Education

### Office Occupations in the Small High School

The administrator of the high school with fewer than 600 students finds it difficult to plan the business education program to meet his particular school and community needs. The educational load which must fall on one teacher creates one difficulty in programming. Nevada is taking a hard look at its capabilities for offering modern office occupations in the small schools.

The vocational educator confronted with the problem of deciding for what occupations to offer training and at what level, must deal with data on job needs, descriptions of changes now in the offing, and information concerning entry qualifications and locations in which jobs are to be found. Even in the small high school, the administrator must plan for education and training which will permit individuals to enter a constantly changing job market.

In many small schools, work experience programs for business education pupils are now available under the Vocational Educational Act and Economic Opportunity Act. Clerical cooperative jobs in governmental institutions are recognized for reimbursement under these acts.

In a special sense, ease of transportation is offering some solution by bringing school youth from scattered areas to a central area school that is able to provide more staff, more facilities, and an expanded curriculum.

When elimination of the small high school by district reorganization is not possible, new curriculums in business are being tried in an endeavor to keep pace with the demands of the world of work.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Office Occupations Education

### Office Occupations in the Small High School

**I. A CORE OF BUSINESS STUDIES SHOULD BE OFFERED IN THE SMALL HIGH SCHOOL.**

This core will include typing, bookkeeping, office practice, shorthand, and cooperative office training. The office practice class should place emphasis on office procedure and make use of local office facilities. Office automation practice sets and some basic machines should be utilized to help teach the automated processes. An increased emphasis should be placed on economics and business law.

**II. AN ENRICHMENT PROGRAM SHOULD BE OFFERED WHEREVER PRACTICAL.**

This enrichment sequence would include general business, business communications, business exploration, business law, business mathematics, data processing, economics, and record keeping.

## III. COMBINING SUBJECT MATTER FROM SEVERAL COURSES AND INTEGRATING SUCH SUBJECT MATTER INTO A SINGLE COURSE SHOULD BE ENCOURAGED.

In balancing skill and non-skill courses, the small high school faces the problem of providing sufficiently diversified training within the limits of its facilities to meet the needs and desires of the students and the community. An alternate-year program may also help students acquire a higher degree of competence that would be possible through unvarying yearly offerings.

## CAREER DEVELOPMENT YEARS

### Recommended Exemplars - Office Occupations Education

### MODEL I: Office Occupations in the Small High School

OBJECTIVES: The office occupations program in the small high school will place emphasis on office procedures and make use of local office facilities. Office automation practice and basic machine instruction will help to teach the automated processes. Increased emphasis will be placed on economics and business law. The program will be designed to balance the skill and non-skill courses within the limits of the small school's facilities to meet the needs of the students and the community.

CONTENT: A core of business studies in the small high school will include: Typing, bookkeeping, office practice, shorthand and simulated, directed, or cooperative office training.

Wherever possible the following units will be added to enrich the sequence of business training: Basic (general) business, business communications, business exploration, business law, business mathematics, data processing, economics, and record keeping.

METHODOLOGY: The office practice class will place emphasis on office procedure and make use of local office facilities. Office automation practice sets and some basic machines will help to teach the automated processes. An increased emphasis will be placed on economics and business law.

In balancing skill and non-skill courses, the small high school faces the problem of providing sufficiently diversified training within the limits of its facilities to meet the needs and desires of the students and the community. Some of these problems will be resolved by combining subject matter and integrating subject matter from several courses into a single course. An alternate-year program will help students acquire a higher degree of competence than will be possible through undaring yearly offerings. A suggested plan will include during the first and third years, basic business, typing, bookkeeping, and office practices and during the second and fourth years, basic business, typing, shorthand, and a selection of two or more of the following: Business law, salesmanship or retailing, consumer economics, business organization, and management.

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Office Occupations Education

### MODEL I: Relevant Work Experience Programs

OBJECTIVES: Regardless of relevant work experience, planning is the key to successful office education programs. Successful office education programs can be assured if the following criteria are met:

1. Programs should include a planned sequence of courses and supervised practical experiences consistent with students' occupational goals.

2. Programs must present the most up-to-date information and teach skills needed for entry and advance in the office occupations. Labor market occupational surveys should be used to determine what skills and knowledge will be needed by persons entering employment and to identify the retraining needs of persons already employed in the office occupations.

3. Programs should be developed in consultation with an advisory committee composed of employers and other individuals or groups having knowledge of the office occupations.

CONTENT: The selection of course content for office education programs should be based upon activities performed by office workers. These activities, which may be classified as "facilitating functions," include, but are not limited to, the following:

1. Recording and retrieving data
2. Supervising and coordinating office activities
3. Preparing internal and external communications
4. Reporting information

There is a growing recognition among office educators of the value of supervised practical experience in real or simulated employment conditions to supplement classroom instruction. The plan requires that instruction in office education and the other occupational areas include both classroom work and supervised practical experience.

METHODOLOGY: Three common techniques for offering realistic training are recommended. These plans provide for (1) group instruction in basic principles; and (2) individual instruction necessary to insure the student's employability. Common techniques for offering realistic training follow:

Cooperative Office Occupations Education represents the coordination of classroom instruction and supervised on-the-job training, each reinforcing the other. With office instruction serving as an extension to classroom instruction, the student is given a clear understanding and appreciation of office procedures and problems. To safeguard the interest of the student, the on-the-job work experience is varied and is organized around the career objective of the student. This is the most realistic form of work experience programs.

The success or failure of a Cooperative Office Education program depends upon the manner in which the teacher-coordinator carries out his responsibilities.

The State Plan for Vocational Education defines the work experience and education qualifications required of teacher-coordinators.

Directed Office Occupations Education is similar to the cooperative program in that the learning experiences, both in the classroom and on the job, are carefully planned and adapted to the abilities and needs of the student and his career objective. The realistic work experience occurs in the office of a local firm, school system, or governmental agency. While not embracing all of the aspects of a cooperative program, the directed work experience activities help bridge the gap between the school and the world of work.

Simulated Office Occupations Education is used when the cooperative or directed programs are not feasible. It uses the intensive block of time concept to provide problem solving experience typical of the world of work and the facilitating function of the office. It relates classroom activities realistically to actual job requirements. A model office laboratory may be used so that the student is educated as a "whole office worker" with education experiences as real office assignments.

Projects are designed to reinforce classroom instruction, to provide the students with opportunities to demonstrate their creativity in problem-solving, and to measure student performance as related to occupational goals.

The community, as well as the classroom, affords students many opportunities to participate in individual and group projects. Examples of community-based projects include:

1. Part-time Employment. Students are employed after school for short periods of time or on Saturdays. These experiences not only give students opportunities to evaluate their occupational competencies under actual working conditions, but also provide them with opportunities to practice what they have learned in the classroom.

2. Volunteer Service with Civic Groups. This type of project can serve as a means for students to use the various skills they learned in the classroom.

3. Directed Observation. Students are given opportunities to observe employees who are engaged in the office occupations. Through this type of project, students see the skills and knowledge needed to perform the various functions of the office.

In cooperation with coordinators of home economics and distributive education programs, the teacher-coordinator for the cooperative office education program may participate in team-teaching and general staff meetings. (See related home economics exemplar) By working together simultaneously on related problems, the coordinators add both effectiveness and efficiency to the total work experience program.

Records of Completion and Achievement. Because the citizen will continually enter, exit, and reenter educational training, something more than the traditional high school diploma or even college degree is needed to record the employment level achieved and the completed training competencies acquired by each individual. In the past many obstacles have prevented the perpetuation of such a record. These obstacles must be overcome and a standard format used to indicate the understanding, knowledge, and skills that each learner has attained. Such a record must be accepted by employers and educators so that each individual can be successful in seeking employment for which he is trained and reenter the educational track at the proper level. The record of completion can stand as, at least, the one unifying element in the total educational program.

In addition to the "Record of Completion," which resembles the school transcript, a "Certificate of Achievement or Accomplishment," which is similar to the high school diploma, can be awarded to those who successfully complete the requirements of a complete cluster of occupational training units.

The Certificate of Achievement must be fully sanctioned by both educators and the business community. Such certificates are used already in a number of metropolitan areas. Cooperation among business teachers, counselors, and business advisory committees, followed by appropriate publicity about the certificate are essential for its acceptance.

The certificate (1) gives the learner a tangible, worthwhile goal for which to strive--proof that is acceptable by employers for job entry; and (2) aids business in selecting competent employees. The following are purposes of the Record of Completion:

1. It safeguards the schools against possible misrepresentation or error by an applicant seeking a position in the occupational field, in regard to completion of a course of study.

2. It serves to motivate a student to complete a course of study successfully.

3. It can be used as a transcript for school transfer purposes or future enrollment for specialization by a trainee.

4. It can be used as a base from which counselors or teachers in the same or different schools can prepare specific programs of study for the trainee.

5. It can result in a saving of time for investigation by an employment office.

6. It can be used in lieu of grades to standardize skill and knowledge achievements, thus saving possible embarrassment of the trainee by an employer or an employer's representative. It also provides a basis to evaluate the trainee with other trainees from different groups, rather than solely on his performance as contrasted with trainees in a given local group.

7. It can be used as an objective measurement against certain employment standards.

Some Shortcomings of the Record of Completion:

1. While providing statements of trainee skill achievement in quantitative terms, it also provides for qualitative statements. These qualitative assessments, however, are usually limited to the knowledge of items studied.

2. Many judgments of proficiency are left to the individual teacher. This

may result in evaluation differences. When objective texts are used, some of these differences may be reduced.

A trainee who leaves a program, either after having completed his suggested program or earlier, should be given his Record of Completion indicating partial or full completion of studies. Copies of this record should be kept in the school office.

The form of the record must be concise enough to be used and yet comprehensive enough to record the individual's achievement. Ideally, one record should be used to record achievement regardless of how many different clusters of occupational training units the trainee has pursued. If this cannot be accomplished, perhaps one record for each different educational cluster can be used.

CAREER DEVELOPMENT YEARS

Recommended Exemplars - Office Occupations Education

## MODEL I: Youth With Special Needs

OBJECTIVES: The basic goals of programs for youth with special needs are to provide occupational training programs to help students who wish to enter office occupations. These programs may be offered to the student who is at least 14 years of age and who may be a potential dropout from the secondary program. The programs provide additional training time so that students will have greater opportunity to experience success and will have a higher motivation to complete the program.

A student may be placed on a cooperative program as soon as he develops an employable skill. This placement may provide motivation for him to complete more advanced occupational education and to complete the high school program. An occupational skill will have been provided even for those who drop out of school.

CONTENT: For a nucleus, all students should take units of training especially geared to their needs in personal development, basic business understanding, and relevant work experience.

Most students should be encouraged, if they have the ability, to proceed with units in record keeping, business mathematics, typing, business machines, introduction to data processing, and duplicating.

Special training for those with a definite employment goal can be given in filing, key punch, cash register operation, and receptionist training.

| Topic of Study | Employment Objective | | | | | |
|---|---|---|---|---|---|---|
| | Clerical Shipping and Receiving | Information and Message Distribution | Key Punch Operator | Office Cashiers | Duplicating and Reproducing Machine Operator | Switchboard Operator |
| 1. Personal Development | X | X | X | X | X | X |
| 2. Basic Business Understandings | X | X | X | X | X | X |
| 3. Relevant Work Experience | X | X | X | X | X | X |
| 4. Record Keeping | X | | X | | | |
| 5. Typing | | | X | | X | X |
| 6. Introduction to Data Processing | | | X | | | |
| 7. Business Machines | | | | X | | |
| 8. Business Mathematics | | | | X | | |
| 9. Duplicating | | | | | | X |
| 10. Filing | | X | | | | |
| 11. Key Punch | | | X | | | |
| 12. Cash Register Operator | | | | | X | |

METHODOLOGY: Full-time programs will be offered in high schools and special schools for remedial training to trainees who require it. Provision for relevant work experience projects will be made by each local educational agency.

Special part-time programs will be organized in high schools or special schools to suit the needs of trainees. Such programs will be sufficiently intensive to meet employment standards.

# CAREER DEVELOPMENT YEARS

## Emerging Mandates - Office Occupations Education

## Post-Secondary Programs

I. **OFFICE OCCUPATIONS EDUCATION MUST BE CONCERNED WITH THE GROWTH OF THE INDIVIDUAL AND THE SOCIETY IN WHICH HE LIVES.**

That individual who has learned well the lesson of everyday adjustment in his culture becomes a welcome and constructive member of society. He is a self-disciplined individual who accepts the social, economic, and political mores of the times. He is one who is capable of making a contribution for the improvement of society through meaningful, creative, and purposeful activity in the economic, civic, and social challenges which are his to cope with each day.

II. **THE OFFICE OCCUPATIONS CURRICULUM MUST DIRECT ITS ATTENTION TO VOCATIONAL ADAPTIVENESS, SOCIAL AND ECONOMIC ADAPTIVENESS, PERSONAL ADAPTIVENESS, AND EDUCATIONAL ADAPTIVENESS.**

Business education must react to needs, serve as an adapter or transformer, and as a creator of new ideas and adjustments. One cannot function in current society without being vitally affected by business.

359/360

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Office Occupations Education

### MODEL I: Post-Secondary Programs

OBJECTIVES: The office occupations program for post-secondary students will be designed to review and meet the following needs, to determine what form of institution evolves and what the source of its program should be to serve the educational needs of a community or area.

In order to determine what form of institution evolves and what the scope of its program should be to service the educational needs of a community, educators must review the following needs that may exist:

1. Educating youth and adults by providing the first two years of a four-year curriculum leading to competency at the professional level of employment.

2. Educating people for initial entry into employment at the semi-professional level.

3. Educating individuals for initial entry into employment at the technician level.

4. Preparing individuals for initial entry into employment at the rank-and-file level.

5. Educating those already in the labor market by providing occupational education that is supplemental to their job.

6. Providing youth and adults with prevocational education in basic general education and with social skills necessary to their profiting from a vocational program.

CONTENT: Post-secondary education, for this example, refers broadly to that education of less than baccalaureate level which is provided for those who are no longer in high school--they either graduated or dropped out. Many multiform educational institutions are developing to meet the needs of those eight out of ten individuals who enter the labor market without a college degree as well as to meet the prerequisite needs of those seeking a baccalaureate degree.

Significant areas to which the business curriculum will direct its attention are the following:

1. Vocational adaptiveness
2. Social and economic adaptiveness
3. Personal adaptiveness
4. Educational adaptiveness

These adaptabilities lead to the following:

1. Technical and managerial competence
2. Environmental understanding and adjustment
3. Self-control and self-confidence
4. Continuation of learning and creativity in thinking

The community college will necessarily deal with education both about business (general concepts) and for business (employment). The vocational-technical school is concerned more with the latter. Through necessity, many of its programs develop at the secondary, as well as the post-secondary levels.

A. The Community College

  1. General education about business economics

    a. Business law
    b. Business organization and management

  2. Education for business

    a. Full-time programs with employment objectives, such as secretarial science, business management, accounting, automated data processing

    b. Full-time programs leading to transfer with objective of continuing for a baccalaureate degree at the professional level

    c. Part-time programs for individuals who are already employed with objectives of upgrading or promotion. Course may be tailored to meet specific test objectives or college credit requirements.

    (Examples: Study for realtors examination; principles of school administration.)

B. Other special schools such as vocational-technical or area schools

  1. Low achievement level

    a. Basic clerical training
    b. Remedial teaching
    c. Character development

  2. Medium level

    a. Develop office job competencies
    b. Develop concepts of handling and processing information
    c. Develop ability for decision-making
    d. Develop capacities for independent study

  3. High level

    a. Provide subprofessional and midmanagement training
    b. Develop creative talents
    c. Develop problem solving and decision-making skills

METHODOLOGY: The junior college is basically a two-year degree-granting (A.A.) institution which offers work similar in scope and quality to that of the lower division of a four-year college or university; it concentrates on curricula which parallel that of the four-year institution. Its major function is to prepare its graduates for transfer to the four-year college or to offer a two-year liberal arts degree.

The community college is considered to be an institution more broad in purpose than a junior college. It retains its emphasis upon two-year degree programs of collegiate quality and, in addition, provides for employment education for graduates who do not transfer.

The technical institute concentrates upon two-year curricula and may or may not offer accredited collegiate level courses or offer degrees. In any case, it emphasizes employment education and concentrates upon course work of an applied nature.

The vocational school which operates at the post-high level concentrates upon education for the job. It does not presume to be collegiate in nature, nor does it attempt education for much beyond the skilled (rank and file) level job.

Area vocational schools have captured the imagination of educators throughout the United States. The Vocational Education Act of 1963 defines four types of these schools: A specialized high school providing full-time vocational education, a department in a high school offering courses in at least five different occupational fields, technical schools open to personnel who have dropped out of high school or to persons who have completed high school, and a department in two-year colleges or in universities.

# CAREER DEVELOPMENT YEARS

## Present Practices - Distributive Education

The basic objectives of distributive education programs are to help students acquire employment, adjust to the employment, and advance in the distributive occupations they enter. A distributive occupation by legal definition is an occupation followed by proprietors, managers, or employees engaged primarily in marketing or merchandising goods or services. The occupations are common to various business establishments, engaged in retailing, wholesaling, manufacturing, storing, transporting, financing, and risk-bearing.

The scope of distributive education may include instruction and training for students from age fourteen through the employable adult years. Included are preparatory programs leading to employment in a distributive occupation, career development programs, and updating and upgrading programs for employees. Courses and curriculum are offered at the high school, post high school, and adult extension levels. In short, distributive education is not terminal, but provides life-long education opportunities for persons employed in distributive occupations.

To be effective, the content of distributive education programs must have breadth and specificity. Breadth is required to avoid limiting students' opportunities for employment in any one type of position. Specificity is required to keep the instruction from becoming so general that it will not apply directly to any particular distributive occupation. The program should develop marketing competency, understanding of how the marketing system operates in the free enterprise economy, fundamental skill competency, and specific skills in oral and written communications and in the arithmetical processes; technical competency, a knowledge of the goods and services with which he deals; and social competency, the development of positive personal traits, appearance, and attitudes.

At present, Nevada supports twelve high schools and four adult distributive education programs. In the former, training in salesmanship, marketing, merchandising, and related distributive occupations forms a preparatory program through which students are prepared for a distributive occupation which they have selected as their employment goal. Such a program may be based on project training or on a cooperative program. Students who carry out a science project are given some time for occupational experience during the period of project training. Those enrolled in cooperative classes are employed according to a school approved training schedule in a distributive occupation. They are considered to be preparing for full-time employment in line with their occupational objectives.

At the post-secondary community college level, distributive education is primarily designed to develop the occupational competencies for advancement to junior executive positions in marketing and distribution. Program of instruction refers to the mid-management program since it provides extensive coverage of general content with special emphasis on operational management. The program includes preparatory training and coordinating work experience in a distributive occupation at the mid-management level.

The adult program of distributive education includes instruction through the use of short unit courses in salesmanship, marketing, merchandising, supervision, and management for those already employed in or preparing to enter a distributive occupation. These short term courses usually consist of ten to fifteen class sessions. They are designed to meet the immediate needs of participating students in such areas as retail orientation, customer relation, retail selling, basic supervision, and personnel management.

Courses are also designed for young people whose needs have not been met by existing education programs. These distributive education programs have as their aims the development of marketable skills which make gainful employment possible, and the provision for adequate diversity in instruction and in the choice of occupational goals. It is important that counselors and teachers cooperate in the design and direction of such courses.

One major problem that appears in the present programs is the general lack of special facilities designed specifically for distributive education. Such facilities might well include a classroom area, a model store including interior units, extensive workshop storage areas, a library, an office, and exterior display units. These facilities, considered as a whole, would provide both instructional and laboratory space for the development of adequate programs at all levels of distributive education.

# CAREER DEVELOPMENT YEARS

## Emerging Mandates - Distributive Education

Distributive Education shares with other areas in career development education the general mandates enunciated in the general introduction. There are, however, some specific concerns of distributive education which deserve particular attention:

I. **SPECIAL PROGRAMS MUST BE DEVELOPED FOR THE OUT OF SCHOOL AND OUT OF WORK YOUTH.**

Such a program should pay particular attention to the culturally deprived dropout who is in special need of counseling and services. Such courses are needed especially in the metropolitan areas.

II. **A PROGRAM FOR VOCATIONALLY ORIENTED SECONDARY SCHOOL INSTRUCTION AND FOR SPECIAL JOB TRAINING, COUNSELING, AND ON-THE-JOB TRAINING FOR STUDENTS IN SPECIAL EDUCATION MUST BE PROJECTED.**

Such a program would promote occupational readiness in students of an employable age with I.Q.'s of fifty to seventy-five or with legally defined physical, educational, or psychological impairment.

III. **COURSES IN DISTRIBUTIVE EDUCATION MUST BE PROVIDED FOR HIGH SCHOOL JUNIORS AND SENIORS WHO ARE EMPLOYED TEMPORARILY FOR THE SUMMER SEASON, BUT WHO EXPECT TO RETURN TO FULL HIGH SCHOOL OR POST-HIGH SCHOOL EDUCATION.**

Such a program might consist of basic sales or public relation training with special consideration for the demands of local business. Training could be conducted on a short term basis in June prior to the summer employment season.

IV. **COOPERATIVE ARRANGEMENTS MUST BE MADE SO THAT STUDENTS IN THE VOCATIONS MAY ACQUIRE KNOWLEDGE OF THE BASIC DISTRIBUTIVE ASPECTS OF ALL VOCATIONAL OCCUPATIONS AND TRADES.**

Such a program would be based on the idea that distributive education lies at the basis of many other occupations. There are many vocations where the student is required to have social and marketing competencies to get and hold a job. Students in these vocational areas should acquire a knowledge of basic marketing functions within a business organization.

V. **THOSE RURAL SCHOOLS THAT HAVE TOO FEW STUDENTS TO SUPPORT A DISTRIBUTIVE EDUCATION INSTRUCTIONAL PROGRAM MUST WORK OUT MEANS OF PROVIDING SHARED PART-TIME INSTRUCTION WITH ONE OR TWO OTHER HIGH SCHOOLS.**

When the cost of a distributive education teacher and his program would be prohibitive for either school district on a per-student cost basis, the feasibility of setting up a program involving two or more schools in separate rural districts is worth examining.

VI. **EXPERIMENTAL PROGRAMS MUST BE EXPANDED TO DEVELOP ACCEPTABLE PROGRAMS FOR RURAL USE.**

The programs may utilize already existing business programs with particular emphasis on the distributve aspects of the programs.

VII. **SPECIAL ATTENTION MUST BE GIVEN TO THE CULTURALLY DEPRIVED AND TO THE DROPOUT.**

The work experience program in the tenth grade may be especially useful for those who are experiencing difficulty in the regular full-time school program. Students with such a program should be referred by school counselors when it has been determined that they can benefit from this type of experience.

VIII. **A CURRICULUM FOR DISTRIBUTIVE EDUCATION SHOULD INVOLVE AN OVERALL PROGRAM APPROACH.**

To continue to think of distributive education as one course is erroneous.

It is, rather, a series or sequence of courses, with the specific areas of subject matter concerned with distribution clearly defined.

IX. **THE MANAGEMENT CONCEPT MUST BE EXPANDED IN DISTRIBUTIVE EDUCATION COOPERATIVE COURSE CONTENT WITH A SPECIAL EMPHASIS ON MANAGEMENT CLASSES AT THE ADULT LEVEL.**

The increasing complexity of the distributive functions demands increasing skill in making management decisions. Consequently, training skilled manpower for all levels of management and supervision is necessary for a realistic distributive education program. To this end, distributive education teacher-coordinators and supervisors will frequently need reeducation in management concepts.

X. **DISTRIBUTIVE EDUCATION STUDENTS MUST BE ENCOURAGED TO TAKE AN ACTIVE PART IN DISTRIBUTIVE EDUCATION CLUBS OF AMERICA INSTITUTES.**

Distributive education students are often prevented by time conflicts from participating in regular extracurricular activities. D.E.C.A. programs, however, are designed to correspond with working hours for the students who can thus enjoy participation in a meaningful student club dealing with their area of particular interest.

XI. **RESEARCH MUST BE CONTINUED AND INTENSIFIED TO DETERMINE A PRIORITY OF EDUCATIONAL NEEDS FOR DISTRIBUTIVE EDUCATION.**

Distributive Education personnel should make serious and systematic studies before they offer courses. Unless there is a demonstrated need for the course, and unless the content is of related value, the course should not be presented.

XII. **BETTER LIAISON MUST BE ESTABLISHED WITH EMPLOYERS, BOTH FOR CURRICULUM PLANNING AND IMPLEMENTATION, AND FOR JOB PLACEMENTS. IT IS IMPORTANT THAT THE INVOLVEMENT OF EMPLOYERS IN THE PROGRAMS BE TOTAL AND NOT MARGINAL.**

It is unrealistic to expect employers to accept enthusiastically a program which they have not helped design.

XIII. **EVERY COUNTY SCHOOL BOARD MUST HAVE A SPECIFIC, CAREFULLY DEVELOPED AND REVIEWED PLAN OF ACTION IN DISTRIBUTIVE EDUCATION.**

It is important that where distributive education has not been included in total county education planning, every effort be made to inform school boards of the potential value of the program and to urge its implementation. Close cooperation between the counties, the Nevada State Department of Education, the Department of Employment Security, and local employer groups is essential in the establishment of programs where they do not now exist.

XIV. **ADVISORY COMMITTEES MUST BE UTILIZED MORE EXTENSIVELY.**

Such committees are aware of the manpower supply locally, and they represent the community and the prospective employer in cooperative planning with teachers, coordinators, and administrators.

XV. **LOCALLY, NEW EMPHASIS MUST BE GIVEN TO SERVICE BUSINESSES, HOTEL AND LODGING, RESTAURANTS, AND OTHER DISTRIBUTIVE OCCUPATIONS RELATED TO TOURISM.**

Training classes for such occupations require aclose cooperation between the employer and the program coordinator, particularly since classes at a variety of levels up to those concerned with business management will be necessary to fulfill job requirements.

XVI. **THERE MUST BE A MAXIMUM OF COOPERATION BETWEEN LOCAL DIRECTORS OF ADULT EDUCATION AND THE STATE'S DISTRIBUTIVE EDUCATION SERVICE.**

There are increasing demands for adult classes in distributive education and a corresponding necessity for understanding and for cooperation in instances where distributive education becomes a part of the total adult education program.

XVII. **DISTRIBUTIVE EDUCATION DEPARTMENTS IN LOCAL SCHOOL DISTRICTS MUST DEVELOP SPECIAL PROGRAMS TO ACQUAINT QUALIFIED INDIAN BUSINESS MEN WITH FUNDAMENTALS OF GOOD BUSINESS MANAGEMENT.**

Instructional programs developed in cooperation with the Bureau of Indian Affairs should consist of fundamental concepts of business management necessary for the successful operation of small retail and service businesses. Particular attention should be paid to business record keeping, business mathematics, selling, credit buying, insurance, and elementary law.

XVIII. **SHORT TIME COURSES MUST BE SET UP FOR WELFARE CLIENTS WHO ARE EMPLOYABLE BUT WHO, BECAUSE OF PHYSICAL APPEARANCE AND A LACK OF ABILITY TO INTERVIEW PROPERLY, ARE NOT ABLE TO OBTAIN JOBS.**

Such a program should be conducted by the Welfare Department in cooperation with local administrators and teachers and the directors of various local industries.

## XIX. QUALITY TRAINING PROGRAMS FOR TEACHERS OF DISTRIBUTIVE EDUCATION MUST BE ESTABLISHED AT THE UNIVERSITY LEVEL IN NEVADA.

At the present time, courses relating specifically to the teaching of distributive education are not available. Such courses, given under university auspices by appropriate university personnel and highly qualified business men, should provide an adequate source of well trained teachers.

## CAREER DEVELOPMENT YEARS

### Recommended Exemplars - Distributive Education

### MODEL I: A Project Approach

OBJECTIVES: The purpose of the project approach is to provide the student with an opportunity to apply what he is learning while he is learning it. The program then becomes not only a means of learning but also a means of applying learning.

CONTENT: The development of project training in itself does not involve the establishment of new or different content. In this approach, as in others, the content of the distributive curriculum includes subject matter commensurate with the level of performance expected of each student trainee. Each student must achieve a certain degree of competency in marketing, technology descriptive of his occupation, social skills, the applications of mathematics, and economic understanding. Projects consist of all of the practical activity of educational value conducted by students inside or outside of class. Systematic and progressive instruction is provided by their teachers, parents, employers, or others appointed in authority.

METHODOLOGY: The project method is particularly useful in schools that may lack community resources for on-the-job training in all necessary areas of distribution. It may also be used to advantage in the first year of a three year program. During that first year, students have not yet become involved in the cooperative program and, therefore, would have no practical application for theories of the project method. Project training provides flexibility in preparing persons for employment in marketing.

The method combines classroom instruction with supervised and coordinated laboratory activities related to the distributive occupational areas in which the student is preparing for employment. If the laboratory concept is educationally sound, it follows that the void left when actual employment is not used on a regular basis must necessarily be filled by some other means. The project method with its emphasis on practicality is designed to do this.

A good project program will be so administered as to provide opportunities for practice in various aspects of business. This includes selecting and planning, implementing and conducting the projects, recording data, preparing reports, evaluating results, interpreting experimental results, and making use of them in similated distributive occupations. Such a program should provide the student with the opportunity for learning to perform certain skills and for making varying degrees of managerial decisions.

## OUTLINE OF COMPETENCIES TO BE DEVELOPED IN PREPARATORY CURRICULUMS

A. Competency in Marketing (Distribution)
   1. Selling
   2. Sales Promotion
   3. Buying
   4. Operations
   5. Market research
   6. Management
      a. Policies
      b. Organization
      c. Personnel
      d. Financing

B. Competency in a Technology
   1. Product knowledge
   2. Service knowledge
   3. Special techniques

C. Competency in Social Skills
   1. Business Social Skills
   2. Ethics
   3. Human Relations
   4. Supervisory skills and leadership
   5. Public relations
   6. Grooming

D. Competency in Basic Skills
   1. Application of Mathematics
   2. Communications
   3. English (Spelling and usage)

E. Competency in Economic Concepts
   1. Channels of distribution
   2. Job opportunities in distribution
   3. Distribution in a free economy
   4. Economic systems
   5. Knowledge of economic laws (general)

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Distributive Education

### MODEL II: The Distributive Education Method

OBJECTIVES: To offer instruction in marketing, merchandising, and management; to aid in the improvement of techniques of distribution and to develop an understanding of the social and economic responsibilities which accompany the right to engage in distribution in a free, competitive society.

CONTENT: The plan for distributive educators is a method of instruction which involves regularly scheduled part-time employment and classroom instruction. The part-time employment provides opportunities for the student to practice theory while further developing those competencies required for distributive employment. Classroom instruction is centered around the discipline of marketing and instruction related to the student's career objective.

METHODOLOGY: The distributive education program is "student-oriented," seeking to serve the following groups:

1. High school students preparing to enter distributive occupations through:
    a. DE I preparatory and project plans
    b. DE II and III cooperative plans
2. Youth and adults who have completed high school and are full-time students preparing to enter distributive careers through the post-secondary program.
3. Youth and adults unemployed or employed who need education or reeducation to achieve employment stability or to advance in their chosen distributive careers through the adult program on four levels:
    a. Preparatory (DE Adult I)
    b. Employee (DE Adult II)
    c. Supervisory (DE Adult III)
    d. Management (DE Adult IV)
4. Students with low academic standing who need help in making the transition from high school to work.
5. Actual or potential school dropouts and disadvantaged youth who need special instruction to find their occupational potentialities and to become gainfully employed.
6. College-bound students who have the abilities and interests required for productive management careers in distribution or as distributive education coordinators.

### MODEL III: A Total DE High School Program

OBJECTIVES: To prepare individuals for gainful employment or for advancement in a distributive occupation, before entry into the labor force, with the education that will make them continually trainable and employable, even after shifts in the labor market.

CONTENT: As a program, distributive education includes a variety of curriculums. Some curriculums lead to the achievement of competencies necssary for initial employment or entirely new occupational opportunities. Other courses are provided so that those already employed in a distributive occupational field may attain employment by updating and retraining.

METHODOLOGY: The distributive education high school program provides instruction on three levels:

DE I: A basic curriculum using the project or preparatory plans to prepare students for eventual employment in distributive occupations. This class is an elective course in which students are introduced to this occupational field and at the same time examine their own qualifications to determine whether they are suited for employment in distribution. The course is made vocationally relevant through use of projects related to the distributive businesses in the community. Students enrolled in DE I must be at least fourteen years of age.

DE II: The beginning cooperative plan, which should be the second year of DE for most students, offers students the opportunity to attend classes in the school for half of each day. During this half day, each student will usually take two subjects required for high school graduation as well as DE II, in which he receives classroom instruction for performing a beginning job in distribution. In addition to classroom instruction, each student receives from fifteen to twenty-five hours of instruction and experience in a job in a local distributive business. Students must be sixteen years of age.

DE III: The advanced cooperative plan, which should be the third year of DE for most students, continues the same program followed in the DE II curriculum. In this year's study, students progress to more advanced learning in the classroom and on-the-job training in preparation for full-time employment in distribution after high school graduation, or for continuing education in the post-secondary or four-year college programs in distribution. Students must have completed DE I before becoming eligible for DE II or DE III.

## MODEL IV: A Post-Secondary and Community College Program

OBJECTIVES: To offer curriculum in marketing and distribution for persons who have completed or left high school and are available for full-time study in preparation for entering a distributive occupation in manufacturing, wholesaling, retailing, and service businesses which may include midmanagement and management careers.

CONTENT: Distributive education at the post-secondary or community college level is primarily designed to develop the occupational competencies required for advancement to junior executive positions in the field of marketing and distribution. The program of instruction is referred to as the midmanagement program in that it provides extensive coverage of general content areas with special emphasis on operational management.

METHODOLOGY: The midmanagement program is a part of the broad continuum in the educative process directed toward the self-realization of the individual student. It is concerned with the discovery and nature of the individual's interests, abilities, and aptitudes and necessitates an individualistic and flexible approach. The immediate concern is the development of occupational competencies required for employment in semi-professional positions in marketing. This level of competency lies between the semi-skilled and entry jobs, usually requiring a high school diploma and the professional and top management positions, usually requiring a four-year college degree.

The midmanagement program consists of two basic components--classroom instruction and occupational experiences. The learning experiences provided in the classroom include studies in marketing general education, and the technology inherent in the occupational clusters of jobs identified by the student as his career objective. The occupational experience is provided according to a cooperative arrangement between the college and the business whereby the student is placed in a distributive occupation for a designated period of time in which he follows a predetermined plan of learning experiences. Both the classroom instruction and occupational experience are carefully coordinated to implement and supplement each other. This interrelation of instruction is emphasized in the occupational seminar which is held in conjunction with the student's occupational experience. Instruction leads to a two-year associate degree or similar recognition of completing a formal program of study. This program prepares the student in both breadth and depth in the various competencies necessary for distribution work, primarily at the middle management level.

### MODEL V: An Adult Program

OBJECTIVES: To provide short term preparatory and supplementary classes for adults, who cannot pursue full-time study, leading to a specified occupational goals. The program also offers an opportunity for employees to prepare for advanced positions by providing instruction for adults entering or reentering employment and for those who need to develop new skills.

CONTENT: There are many underemployed and unemployed persons in the community who may be interested in exploring the opportunities in distribution. Exploratory and distributive survey types of courses should provide these persons with insights into the field of distribution. Persons who have completed or dropped out of high school should be offered a program of courses to enable them to seek and acquire gainful employment in the field of distribution. The ideal adult distributive education program should meet the training needs of the specific community for which it is planned.

METHODOLOGY: The Distributive Education Adult Program provides instruction on four levels--preparatory, employee, supervisory, and management.

DE Adult I: A preparatory curriculum similar to the preparatory plan offered in the high school program. It is designed to prepare adults or out-of-school youth for entry jobs in the field of distribution.

DE Adult II: A basic curriculum designed to develop proficiency for persons employed on the beginning levels in distributive businesses.

DE Adult III: A middle management curriculum designed to instruct supervisory personnel in distributive businesses, or to prepare basic level employees for future advancement to supervisory positions.

DE Adult IV: A top management curriculum designed to instruct owners, managers and top-level executives in distributive businesses, or to prepare supervisory personnel for future advancement to such positions.

## MODEL VI: A Program for Out-of-School and Out-of-Work Youth

OBJECTIVES: Special attention must be given to the culturally deprived and the dropout. Improved counseling skills and services must be provided in the public schools with the advent of new workers in the labor market--part-time workers, mature workers, midmanagement groups, and others; a reemphasis of job instruction training and human relations training courses will be needed.

Such courses could be offered in any community where they are necessary, but they are probably most needed in populous areas and/or for the adult programs.

CONTENT: A Nevada public school program for out-of-school and out-of-work youth between the ages of sixteen and twenty-one years has three phases: Census and counseling, education and employment, and training and tryout. The titles are largely descriptive of the content at each level.

METHODOLOGY:

### Census and Counseling

On the basis of a census of high school dropouts, invitational letters are sent to former students inviting them to come to a reception center to talk with a counselor. The reception centers are established in a high school and may be open from 6:30 p.m. to 9:30 p.m.

Those who accept the invitation may receive one of the following services:

1. Referral to social agencies for help in solving personal problems, if this appears to be the young person's need.

2. Referral to the evening school program where the reception center is located.

3. Referral to a preemployment counseling workshop preparatory to entering either the Double EE (Education and Employment) or Double TT (Training and Tryout) program.

Those who are referred to the preemployment workshop attend ten evening group-guidance conferences spread over a five week period. The group leaders of these workshops are day high school counselors. At these sessions group tests and interest inventories are administered, and discussion centers on such topics as appropriate dress for an employment interview, how to fill out an application, and how to relate effectively and harmoniously to one's supervisor and fellow employees. Social security cards are obtained. During this five week period, the counselor evaluates the student and recommends him for placement in either Double EE (Education and Employment) or Double TT (Training and Tryout) programs.

## Education and Employment

This is a cooperative work-study program in which a student spends twelve hours per week in school classes and up to thirty-two hours per week on-the-job in a merchandising occupation.

School classes are in English, social studies, business, and essential mathematics. Content in these subjects is job-oriented, but is designed to further academic knowledge as well. The school program operates for a ten-month school year, and high school credit is given.

## Training and Tryout

Short term training preparatory to tryout in employment as hospital aids, food service employees, small appliance repairmen, garage and service station help is provided in this phase of the program. Training is also offered to prepare students for examinations in civil service or for induction into the armed forces. All training in these areas is given at the high school or vocational school.

While the educational and vocational aspects of the program are highly significant, the outstanding characteristic of the sixteen to twenty-one program is that the school assumes a three-year responsibility for a young person when he enrolls in either the Double EE (Education and Employment) or Double TT (Training and Tryout) program. Responsibility may include periodic follow-up by the counselors even after the student has completed these programs. He will be encouraged to complete high school education, either by returning to full- or part-time day or evening school.

# CAREER DEVELOPMENT YEARS

## Present Practices - Home Economics Education

The occupational aspect of home economics was developed in response to four compelling forces: (1) The Vocational Education Act of 1963, which encouraged home economics to include education for wage earning; (2) The rapid increase in the number of women entering the labor force, which generated the concern to help them more effectively accept their dual roles as homemaker and wage earner; (3) The expansion of opportunities for men and women in service jobs that utilize the knowledge and skills of home economics; and (4) The desire to help persons with special needs--the culturally deprived, mentally retarded, physically handicapped, and emotionally disturbed--to fit into adult life in a meaningful way.

The occupational program works cooperatively with the homemaking and family living program, but its major purpose is to develop the attitudes, understanding, and skills that enable individuals to perform effectively in beginning jobs that require home economics knowledge and skills. The six major goals governing present practices in the career development years are the following:

1. Preparing youth and adults for gainful employment in occupations requiring less than a baccalaureate degree--occupations for which there is expected to be an economic demand.

2. Preparing youth for homemaking and for their dual roles as homemaker-wage earners.

3. Providing preprofessional education for students who will enter colleges and universities to become professional home economists.

4. Providing continuing education for youth and adults supplemental to homemaking or to gainful employment.

5. Serving persons with socio-economic or other handicaps whose needs cannot be met through the regular program.

6. Preparing individuals for effective citizenship, especially as consumers.

Programs to train for gainful employment are, or have been, in operation in secondary schools to train individuals for occupations in food services, clothing services, and home and child care services. In general, these courses have extended for one or two semesters and have been designed to develop basic employment competency. Facilities in existing home economics departments and school cafeterias have been used. In addition, there has been cooperation with industry and with community child care facilities.

Adult education programs to train visiting homemakers are now providing trained personnel for services to homes and families. The Home Economics and Health Services have combined to develop a training program for Home Health Aides which has already trained workers for this medicare service.

Programs supplemental to employment for school lunch cooks and cooks' helpers are being provided regularly in the two large counties and in district-wide workshops.

Youth and adults in Nevada have had many opportunities to train for homemaking and for their dual roles as homemaker-wage earners. In recent years, much emphasis has been placed on the management area of homemaking, particularly at the secondary level. A variety of adult homemaking classes have been offered throughout the past thirty years. Courses in all areas of home economics have tried to meet the needs of homemakers, both men and women. In recent years, for example, classes in the Bishop Method of Clothing Construction have been very popular.

Classes in home furnishings, woodworking for the home, furniture refinishing, parent education, cake deocrating, home crafts, and flower arranging--have been designed to keep homemakers up-to-date and to provide for constructive and self-fulfilling use of leisure time.

Post-secondary programs to train food service supervisors, child care assistants and fashion trade personnel are being operated at the University of Nevada, using the facilities of the Home Economics department and work experience stations. Graduates of these two-year programs received an associate degree.

Programs for youth and adults with special needs have been conducted at the Caliente Training School for Girls and at the Women's Prison. Other programs to train unemployed persons for gainful employment have also been offered as a part of home economics' services in most areas of Nevada.

Prevocational homemaking education programs and/or programs to train for gainful employment often encourage students to enroll in post-secondary or professional programs at the University of Nevada. Semester or full-year special interest courses provide opportunities for students to explore career opportunities at the associate or baccalaureate degree levels.

# CAREER DEVELOPMENT YEARS

## Emerging Mandates - Home Economics Education

Home economics programs share the general mandates for the career development years with other related disciplines. There are, however, certain mandates relating to home economics which deserve special emphasis:

I. **EFFORT MUST BE CONTINUED TO SHAPE HOME ECONOMICS PROGRAMS TO MEET THE DEMAND FOR SERVICE WORKERS OF ALL KINDS.**

Persons trained in home economics related skills who can provide services to homes and families in the care of the home, clothing maintenance, meal preparation and service, and of the care of children are in continuing demand. There is a corresponding need for persons capable of serving elderly citizens as visiting homemakers, home health aides, companions, shoppers, or housekeepers either on a full- or part-time basis.

II. **THE PROGRAMS FOR OCCUPATIONAL EDUCATION MUST BE OPEN-ENDED AND CONTINUING.**

Occupational education should be aware of hierarchies of related jobs. For example, in child care a high school graduate might be prepared to be a worker in a day care center and then to go on to post-high school study on to a degree program at a college or university. It is important that each step of the training program make it possible for the person with ability and desire to move to a higher level of training.

III. **HOME ECONOMICS DIRECTED TOWARDS PREPARATION FOR HOMEMAKING MUST BE CONTINUED AS IMPORTANT MAJOR EMPHASIS IN PROGRAMS FOR HIGH SCHOOL AND POST-HIGH SCHOOL YOUTH AND ADULTS.**

Families are the most important resource of the nation, and education for family life is significant for each individual. As wives and mothers increasingly share in the wage earning role in their families husbands and fathers have increasingly shared in homemaking activity. Consequently, at the secondary, post-secondary, and adult levels preparation for successful home and family living should become an integral part of occupational training.

IV. **HOME ECONOMICS PROGRAMS MUST MEET THE NEEDS OF PERSONS WITH ACADEMIC, SOCIO-ECONOMIC, PHYSICAL OR OTHER HANDICAPS WHICH PREVENT THEM FROM SUCCEEDING IN REGULAR PROGRAMS.**

Home economics education must assume the responsibility for training persons whose needs can best be met in this particular type program, whether it be training for employment or for homemaking. Families with low incomes and migrant families, both rural and urban, need information about the use of credit, consumer buying, safety, the care of children, sanitation, nutrition, health, and housing. This information is often best attained through home economics courses designed especially for these needs.

## CAREER DEVELOPMENT YEARS

### Recommended Exemplars - Home Economics Education

### MODEL I: A Program for the Large High Schools

OBJECTIVES: The following example of a curriculum plan is from a large high school in southern Nevada which offers a wide variety of home economics courses designed to serve individual interests.

CONTENT: In addition to two comprehensive courses, General Home Economics and Senior Homemaking, a course in family relations and child development serves both boys and girls. An independent study program is also available for those interested in pursuing special projects.

Special interest courses include those concerning foods, clothing, housing and interior design, and bachelor's homemaking. Boys are eligible to enroll in all courses.

METHODOLOGY: Senior Homemaking is taught from a management point of view and includes units in roles of women, management of resources, managing and decorating the home, managing food for the working women, planning and keeping a wardrobe managing children, and career choices for women. This course would serve all career-bound young women in the school, helping them to prepare for their dual roles as homemaker-wage earners.

These prevocational courses could feed into a variety of courses or programs to train for gainful employment. One such program is now in operation. Fashion Merchandising, taught by a home economics teacher, meets at the same times as Distributive Education I. Exchange units are planned; thus, fashion merchandising students may benefit from the salesmanship training taught by the D.E. teacher and distributive education students may benefit from the techniques of display taught by the home economics teacher. Both Fashion Merchandising and Distributive Education I feed into Distributive Education II, a cooperative work experience program.

The advanced foods and management class revised to a food service training program might serve more students interested in occupational training. Students from this program could feed into the Clark County Vocational-Technical Center for additional food service training; some might become interested enough to study for managerial positions in food service in the Nevada Southern University Hotel Management program.

### MODEL II: A Program for the Middle Sized High School

OBJECTIVES: All home economics courses in this program are designed to provide sound professional education for students desiring to prepare for entering employment at the conclusion of high school, or to enter a post-secondary or a four-year program in home economics or the hotel administration program at Nevada Southern University.

CONTENT: The program provides a sequence of prerequisite courses at the prevocational level which serve as a foundation for the program in Food Education and Service Training, Fashions, Textiles and Clothing.

The content of the food service class includes field trips to observe both commercial and institutional food service operations. Work experience designed for the class has included work in local restaurants and in the school lunch program. Numerous catering experiences are included in the training program such as the preparation and serving of refreshments for school affairs, the classroom teachers' dinner, a luncheon for the faculty and staff, and a dinner featuring lamb cuts for the home economics FHA awards dinner. The program is coeducational and provides training for such occupations as cooks' helpers, bakery helpers, short order cooks, waiters and waitresses, busboys, and cashiers. A student must be sixteen years old and a senior before enrolling.

A course in fashions, textiles, and clothing includes specific work with many different kinds of fabrics, learning methods of commercial clothing construction, techniques of altering, salesmanship, window decor, the care and repair clothing, the coordination of garments and accessories, and beginning methods in custom tailoring. Students are required to alter a garment each week along with regular class work.

METHODOLOGY: The program focuses on work experience, observation and controlled experience activities in the classroom. The necessity for preparation for specific jobs or for further professional training lends a sense of immediacy to the course and strongly motivates the students. The methodological approach to the course is extremely flexible and is designed to take advantage of all possible practical learning situations offered by the community and by the school.

## MODEL III: A Program for the Small High School

OBJECTIVES: The following will serve small high schools desiring to provide some occupational training to boys and girls.

CONTENT: A comprehensive type of prevocational home economics program is recommended for the seventh, eighth, and/or ninth grade level with two or three areas of home economics studied each semester. In addition, special interest one-semester courses could be concluded in the ninth and tenth grades. At the eleventh and twelfth grade levels, the courses are recommended for both boys and girls as follows: (1) Cooperative Vocational Education--a work experience program, and (2) The Contemporary American Family--a course in family relations.

METHODOLOGY: Models for the suggested comprehensive program and/or special interest courses are given under the prevocational years.

The home economics teacher could share with other vocational education teachers the responsibility for the related instruction for the Cooperative Vocational Education work experience program, or the best qualified vocational teacher could serve the entire program.

The course in The Contemporary American Family should strive to prepare young people for the varied roles they will assume in the adult world. Suggested course content includes units in family development, the adult in our society, food for families, housing, money management, home nursing, and family clothing.

## MODEL IV: A Cooperative Work-Training Program

OBJECTIVES: The cooperative work training program will provide students with an opportunity to obtain work experience while receiving related training in the classroom.

CONTENT: This program includes related classroom instruction with work experience designed to help the student to develop personal traits such as confidence, initiative, industry and accuracy; acquire work habits and attitudes which are essential to success in any vocation; make the transition from school to full-time employment; understand the importance of using money wisely; develop the habit of taking good care of public and private property and avoiding waste; develop habits of good health and safety necessary for effective work and enjoyment of life; and develop plans for wholesome use of leisure time.

METHODOLOGY: The teacher-coordinator has the responsibility of teaching the related theory class as well as the responsibility of securing training stations for students.a Assigned stations are determined by the student's scores on an ability and interest basis. Students should work a minimum of fifteen hours and a maximum of twenty hours. For this, they receive one unit of credit and wages appropriate to a beginner in that field of work. In addition, they receive one unit of credit for the related theory class conducted by the teacher-coordinator. The employer-trainer grades the student on his job performance.

In a small school the teacher-coordinator, if not herself a home economics teacher, should work closely with the home economics teacher to assist students who plan to work in home economics related jobs. In large schools, cooperative education programs taught by teacher-coordinators from several vocational services might be scheduled at the same period each day. For example, agri-business, food services, distributive education, and office occupations might each have a teacher-coordinator. Periodically, all first year sections might meet together in a large group room for presentation of general vocational information by resource people or staff persons specializing in a particular area. Sections may sometimes be regrouped according to special interests for certain presentations. Presentations on grooming will be provided for both girls and boys.

Five major units of general vocational information which could be taught in this team approach are orientation, personal development, money management, the world of work, and education and vocational information. Additional instruction related to job skills necessary for each trainee would be offered by the coordinators in their respective sections.

## MODEL V: A Food Services Program

OBJECTIVES: Training programs in food production, management, and services offer some of the best opportunities for employment in home economics related occupations. The food-service industry, offers increased opportunities in the food service occupations.

CONTENT: Several types of programs are suggested depending on the need of the students. Food service programs should aim to develop the following:

1. Personal Qualities--likes people, is willing to serve them and takes pride in pleasing them; gets along with others; follows directions; demonstrates interest and pride in the work; exhibits alertness, pleasantness, affability, open-mindedness, and mental stability in a variety of situations; demonstrates suitable personal habits in dress, manner, and speech.

2. Job Competencies--knows types of food service operations, including service and self-service units; knows about career opportunities and the future of the industry; demonstrates ability to work and get along with customers, fellow employees and employer; understands terms used in food service; knows types of table service and table settings; demonstrates knowledge about general rules of booth and wall table service and general table service; knows preservice service and closing duties; understands how to take, give and assemble orders; knows how to present check and handle money; understands required responsibilities of supervisory personnel; demonstrates good, safe, and sanitary work habits; recognizes legal rights and responsibilities of employment.

3. Additional Job Competencies Expected to result from Longer Type Training Programs in Food Production and Service--demonstrates ability to supply, clear and clean counter; knows how to serve food from steam, bread, salad. dessert or beverage counter; understands care, use and safety regulations of food service equipment; demonstrates basic preparation skills needed for salads, vegetables, sandwiches, flour mixtures, meats, desserts, beverages, and convenience foods; demonstrates knowledge of methods of cooking; demonstrates knowledge of food products and their accompaniments; recognizes quality standards for food products; understands importance of nutritional requirements; uses menu planning principles and knowledge of local food habits when planning menus; knows portion control and cost estimates; understands record keeping; knows how to make food inventories; demonstrates understanding on evaluating prospective working conditions.

METHODOLOGY: A cluster approach will be used for the most part in preparing individuals for food service occupations since employment opportunities would be greater. Courses will be designed to orient students to the food industry; to assist them in the development of good attitudes toward work and good work habits; to assist them in acquiring communication and computation skills needed by the industry; and to assist them in getting meaningful work experiences in the classroom and laboratories or in the community. Placement services must be provided by the school in conjunction with community employment services, and students should be followed-up after placement to determine success of the training program.

## MODEL VI: A Clothing Services Program

OBJECTIVES: The clothing management, production, and services training program will be a cooperative program between Home Economics and Distributive Education. At the successful completion of this program a qualified individual may be gainfully employed as a salesperson in fashion accessories, infants and children's wear, men and boys' clothing, millinery, shoes, and women's garments; and/or as a model.

CONTENT: This training program includes these major areas: Careers in fashion; appearance and grooming; social development--manners, habits, voice articulation, and effective communication; construction techniques; line and design on the figure; art principles in costume design, techniques in writing fashion scripts; fashion show production; care and classification of stock; selection and presentation of merchandise; fitting room procedures; recognizing quality standards; selling techniques for all kinds of apparel; textiles--qualities, uses, care and construction.

The following will be developed or strengthened by this program:

1. Personal Qualities--likes people and enjoys serving them; able to work under supervision; can follow directions effectively; able to make decisions; physically and mentally healthy; emotionally stable; calm, poised and patient; pleasant voice and clean speech; acceptable personal habits; well groomed; cooperative; courteous and friendly.

2. Job Competencies--knows career opportunities in the fashion merchandising field; demonstrates knowledge in grooming and personal appearance through improved personal appearance; exhibits basic skill in construction process; demonstrates understanding of the influence of color and design on clothing of self and others; understands importance of line and design in selection of garments for various figure types; knows how to camouflage figure faults through appropriate garment selection; knows fundamental stock keeping techniques; understands proper sales techniques; demonstrates knowledge in care, construction and fiber content for more effective selling; knows how to tastefully combine costume parts; knows procedure in setting up small dress shop; understands how to figure tax returns; demonstrates skill and knowledge that makes professional advancement possible.

METHODOLOGY: This two-year program will be developed for individuals fifteen to seventeen years of age. The length of the home economics training section is 180-360 hours or one year. It is recommended that a school try to schedule two periods daily to meet the 360 hour requirement in order that individuals be more adequately trained before entering the labor force. The home economics section should be scheduled during the junior year since trainees go into DE II, the cooperative work experience program, during their senior year.

This program is particularly suited to large high schools. Well equipped distributive education and home economics rooms will be available, as well as opportunities for cooperative-work experience. Class enrollment will be determined by what facilities are available for placing and coordinating students in a cooperative work experience.

Students from this secondary program may choose to go directly to a job or to the two-year post-secondary program at the University of Nevada in Fashion Trades or to the four-year program at the University of Nevada in Fashion Merchandising or to other trade schools or universities or to post high school programs.

## MODEL VII: A Training Program for Child Care Aides

OBJECTIVES: The child care aide training program will provide qualified individuals who could be gainfully employed as aides to private kindergarten teachers; as aides in child care centers in private, community or public housing; or to be self-employed by caring for children at home.

CONTENT: The training program involves four major areas: Job orientation including need and types of child care services as well as career opportunities; an understanding and a working knowledge of the concepts of growth and development in children; employment procedures, agreements and regulations; and a work experience program.

The following will be developed or strengthened by this training program:

1. Personal Qualities--courtesy, friendliness, and a sincere interest in children; good personal habits in dress, speech, and manners; and mental stability, reliability, flexibility, and initiative in a variety of situations.

2. Job Competencies--demonstrates knowledge of the meaning, principles and factors influencing the development of children; understands how children grow and the basic ways they develop--physically, mentally, socially and emotionally; knows the types, characteristics and causes of emotionality and can cope with them; assists children in developing good habits and routines and realizes their value and relationship to self-reliance and independence; understands that behavior is a key to understanding children's feelings; knows the purposes and value, the stages, and the types of play; encourages and guides children's play to promote creative and educational development; understands ways of working with children; handles emergencies and is capable of administering first aid; knows employment procedures, agreements, and regulations in securing a position.

METHODOLOGY: The program will be developed for individuals sixteen to eighteen years of age. The time needed for training should be approximately 180 hours or two semesters and should include a meaningful work experience program. If a cooperative work experience program cannot be set up, then an adequately equipped child study laboratory large enough to accommodate twelve to sixteen children will be provided.

## MODEL VIII: A Training Program for Child Care Assistants

OBJECTIVES: The child care assistant training program will provide qualified individuals who could be gainfully employed as assistants in child care centers, in private and community nursery schools, in public and private kindergartens, in recreation centers, in children's home or clinic, in pediatric wards, and in a children's clinic.

CONTENT: The training program involves five major areas: Opportunities for employment as child care assistants; special child care problems stemming from or physical handicaps, the sick or shut-in child, caring for older children and caring for children while the mother is ill; feeding children nutritionally and knowing how to plan and prepare simple meals and snacks; management techniques for helping operate a child care center or home day care facility; and a cooperative work experience in a child care facility or in private homes;

The following competencies will be developed or strengthened by this training:

1. Personal Qualities--courteous, friendly, and tactful in dealing with parents or other adults; understands own role in relation to supervisor; is capable of interpreting and carrying out directions and instructions; exhibits mental stability, reliability, flexibility and initiative in a variety of situations.

2. Job Competencies--understands the many varied job opportunities that exist with training as a child care assistant; demonstrates ability to handle special care problems such as care of children with mental or physical handicaps, and care of children who are ill; understands

how to relate to the older child; knows how to plan and prepare nutritious simple meals and snacks; demonstrates ability in laboratory organization, in programming for educational development, in keeping records, in safety and sanitation procedures and in working with parents.

METHODOLOGY: The program will be developed for individuals sixteen to eighteen years of age. The time needed for training should be approximately 180 hours or two semesters. It should be noted that this training program requires the previous model as a prerequisite. Therefore, the total training time will be approximately 360 hours or four semesters. This program should also include a meaningful work experience program. It is suggested that students actually set up and operate a child care facility in the school, serving lunch at noon.

## MODEL IX: A Training Program for Clothing Service Aides

OBJECTIVES: The training service program for clothing service aides will provide a qualified individual who could be gainfully employed as a seamstress, a dressmaker's aide, or an assistant wardrobe.

CONTENT: This training program includes twelve major areas: Orientation to the world of work; style and design in clothing; knowledge and skills in using fabrics; use and care of equipment; cutting techniques; construction techniques; pressing techniques; hand-sewing techniques; basic alterations and repairs; routines and work habits; recognition of quality in readymade and custom-made clothing; and employer-employee relations.

The following competencies will be developed or strengthened by this program:

1. Personal Qualities--sincere interest in sewing; ability to use machines and tools of the trade; alert to developing sewing skills necessary for the occupation; ability to learn techniques using a pattern and fabric; able to work under supervision and follow directions; able to get work done promptly and on schedule; take pride in work; physically and mentally healthy; cooperative, courteous and friendly; honest and dependable; good personal habits in dress, manner, and speech.

2. Job Competencies--recognizes needs and types of clothing services; understands employment opportunities, responsibilities and limitations; applies art principles to design in clothing: understands difference between style, fashion, and fads; recognizes current clothing trends; understands best design for specific figure type; knows how to coordinate style with design; identifies the different kinds of fibers; knows the various fabric finishes; coordinates construction techniques with type of fabric used; knows use and care of small equipment and supplies; demonstrates skill in using sewing machine and its attachments; knows basic skills of clothing construction; understands speed methods of commercial clothing techniques; knows how to use pressing equipment; knows basic hand and decorative stitches and when they are used; demonstrates ability to correctly fit clothes for self and for others; knows how to change hems, cuff trousers, and turn shirt collars; demonstrates ability to keep work areas neat and orderly; develops sequence and order of work; uses supplies efficiently; recognizes standards of quality in readywear; knows relationships, agreements and laws affecting employment.

METHODOLOGY: This program will be developed for individuals sixteen to eighteen years of age. The length of this program will be approximately 180 hours or two semesters. A clothing laboratory with sewing machines, pressing equipment, laundry facilities, and sufficient small sewing equipment is essential. To make the program more meaningful, it is recommended that field trips be made to various establishments in order to gain first hand knowledge of equipment and techniques used in business.

## MODEL X: A Training Program for Clothing Service Workers

OBJECTIVES: The clothing service workers training program will provide a qualified individual who may be gainfully employed as a custom dressmaker for adults and children, a knitting instructor, a wardrobe mistress, a power machine operator, as a clothing maintenance specialist or be self-employed as a custom dressmaker and alterationist.

CONTENT: This training program includes seven major areas: Custom tailoring and dressmaking techniques; specialized sewing; wardrobe examination; maintenance procedures; commercial equipment; business-management techniques; work experience program.

The following competencies should be developed or strengthened by this program:

1. Personal Qualities--sincere interest in sewing and clothing maintenance; mechanically inclined to use machines and tools of trade; manual dexterity to do knitting and fancy hand stitches; capable of using basic arithmetic for keeping records; able to supervise; enjoys working with people; able to get quality work done promptly and to meet deadlines; takes pride in work; physically and mentally healthy; cooperative, courteous, and friendly; honest and dependable; good personal habits in dress, manner, and speech.

2. Job Competencies--demonstrates ability to use tailoring and dressmaking techniques; knows how to fit and construct clothing for children of various ages; shows dexterity in knitting techniques; shows creativity and imagination in making gifts and household articles; knows how to operate a power sewing machine effectively and efficiently; shows ability to determine necessary wardrobe alterations; knows how to repair and renovate wardrobe items; knows how to estimate time and cost of alterations and repairs; understands cleaning, laundering, and pressing techniques for clothing maintenance; knows how to store clothes; knows how to remove stains from various fabrics; recognizes and practices safety regulations; understands management principles and techniques.

METHODOLOGY: This program will be developed for individuals sixteen to eighteen years of age. The length of this program will be approximately 180 hours or two semesters. It should be noted that this program requires the previous model as a prerequisite. Therefore, the total training time will be approximately 360 hours or four semesters.

## CAREER DEVELOPMENT YEARS

### Present Practices - Trade and Industrial Education

At the present time, there is some degree of transfer between the organized secondary and post-secondary learning experiences. At the secondary and post-secondary level the trade and industrial education program prepares individuals for gainful employment. At the entry level it provides for retraining and upgrading. In addition to the acquisition of specific skills, some attention is given to the development of attitudes and values which affect an individual's job performance and his personal satisfaction. Trade and industrial education programs attempt to inculcate habits which prepare the student to meet his economic, psychological, and social needs.

Present practices include the offering of preparatory and extension courses to help both the employed and unemployed members of the community, emphasizing the acquisition and development of skills and technical knowledge.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Trade and Industrial Education

I. **FLEXIBILE SCHEDULES MUST BE DEVELOPED, PREDICATED UPON THE NEEDS OF A VARIETY OF STUDENTS, IN ORDER TO MAKE PROGRAMS CONTINUING-EDUCATION ACCESSIBLE TO A GREATER NUMBER.**

Limitations of time and offerings can be overcome best by flexibility in both areas. Awareness of current demands and a willingness to meet them require such flexibility.

II. **THERE MUST BE GREATER SENSITIVITY TO AND DEVELOPMENT OF RELATIONSHIPS BETWEEN BUSINESS AND INDUSTRY.**

Awareness on the part of both business and industry of common goals and problems can be developed through communication. In this process the trade and industrial educator can and should play an important part.

III. **THERE MUST BE FURTHER DEVELOPMENT OF THE INDUSTRIAL COOPERATIVE TRAINING PLAN, PREEMPLOYMENT PROGRAMS FOR SINGLE-SKILL OCCUPATIONS, POST-SECONDARY PREPARATORY TRAINING PROGRAMS, APPRENTICESHIP TRAINING PROGRAMS, AND SPECIAL PROGRAMS FOR INDIVIDUALS WITH ACADEMIC, SOCIAL-ECONOMIC, MENTAL, PHYSICAL, OR OTHER HANDICAPS.**

These programs have special implications socially and economically. The development of employable skills among these limited in training and ability has high priority in career development education.

# CAREER DEVELOPMENT YEARS

## Recommended Exemplars - Trade and Industrial Education

### MODEL

OBJECTIVES: The trade and industrial program at the career development level will be an industrial cooperative training plan designed to incorporate free employment training for single-skills, post-secondary training, apprenticeship training, and special programs for the handicapped individual.

CONTENT: The cluster approach to the organization of the content of post-secondary and adult learning experiences is fundamental. Programs designed for preemployment training in a single job category are handled effectively by the industrial cooperative plan since it makes possible training for small numbers of students in several different occupations without necessitating an extensive financial outlay for equipment and materials in the school plant. The program also functions particularly well in meeting the needs of some of Nevada's rural school systems and might also have implications for a residential school program.

Preemployment preparatory programs designed for training of individuals for single job skills are essential in the case of the academic "drop out" since they provide preparation for jobs such as machine operator, janitorial service, lubricating, car wash, etc. Post-secondary preparatory training permits the extension of learning experiences and the development of increased sophistication in one or more of the technical areas. Full-time programs at this level will be pretechnical, preengineering, preindustrial and will be integrated with the academic curricular components most closely allied to the need of the individual students. mathematics, science, and English will be presented within the framework of industrial education and will be related specifically to the individual subject matter or area of specialization in which the student is engaged.

Cooperative work programs will become a part of the fundamental learning format so that the financial gain for basic sustenance can be realized by the learners and so that opportunities can be developed within the field. In Nevada the community college is an institution providing such learning experiences; both economical and cooperative. Flexible scheduling again is the key to organizing a program. Evening and supplementary programs serving the full-time employee's needs are developed in direct relationship to the requirements of the specific jobs of the students. Subject matter is discussed; and materials, tools, and processes in which the student is engaged relate directly to his regular daytime employment.

METHODOLOGY: Effective training programs are sometimes organized to include classes beginning in the eleventh and twelfth grades. Students are permitted to take an area of concentration for a prolonged period. Flexible scheduling is the key to such an endeavor. Also, subjects designed to encourage the potential dropout to remain in school even though he discontinues academic programs may be taught. Such programs require two to three hours of comprehensive lab experience with emphasis on specialization and some in-service or cooperative work as an adjunct. Day and evening programs utilizing school facilities on a rotating basis will afford opportunity to every student. Classes in specific areas should be divided into groups according to the sophistication of the learners.

## (A-4) Area Residential Schools--An Exemplar

Nevada should create and maintain a residential educational facility or a series of facilities sufficiently functional and flexible to meet the extremely critical needs of the region's technological-industrial society. This facility should serve secondary and post-secondary students.

This facility should provide coordinated academic and occupational education for thos individuals who need and can benefit from combination work-study programs on a residential school basis in order to derive maximum value from their educational experiences. Although such a school should serve all individuals, special attention and financial aid should be given individuals who suffer from academic-cultural, socio=economic, and mental or physical handicaps. Students from geographical areas not served by adequate occupational education programs should also be helped.

The principal objectives of residential school education are (1) to assist students who exhibit interest and ability in technically oriented fields, (2) to prepare student for training and formal education combined with cooperative work experience at the secondary and post-secondary levels, and (3) to provide students who expect to terminate their formal education before or at the high school level with at least a minimum of marketable skills. Encouraging the student to remain in school as long as possible and to seek and pursue channels of continuing education should be stressed.

The school should be situated in, adjacent to, or reasonably accessible to a business or industrial center where academic and occupational training programs can be harmoniuosly integrated on a cooperative work-assignment basis. Satelite campuses should be established in rural or urban areas according to the needs of communities to be served.

The population to be served by a variety of full- and part-time enrollment programs includes (1) high school aged youth fourteen to twenty-one who are enrolled in secondary programs on a full-time basis; (2) high school aged youth and young adults who have discontinued their participation in academic programs but who wish to take advantage of occupational training; (3) high school aged youth with academic-cultural, socio-economic, and mental or physical handicaps; (4) individuals who are available for full- or part-time post-secondary level training; and (5) individuals seeking programs geared to retraining or upgrading.

The emphasis in the residential school should be on preparing students for semi-skilled, skilled, technical, and other occupations. All instructional programs are predicated upon the interdisciplinary approach. They require the deliberate integration and reinforcement of English, physics, chemistry, and mathematics in the classroom and laboratory or in work-experience situations.

Some of the exemplary curriculum units are Engineering Technology, Foods Education and Service Technology, Marketing and Distribution, Office Occupations, Aeronautics Technology, Para-medical Technology, Automotive Technology, Graphics Technology and Electrical Technology.

An opportunity exists in the residential school for the scheduling of alternate school and cooperative work assignments. Students may be organized in blocks or groups. While one group is involved with school-oriented training on the campus, the other is involved in some phase of industry with a cooperative work assignment. The groups may alternate at specified intervals of one to two and a half months. Such scheduling permits learning experience, and financial return to the student, and extends use of school facilities to accommodate almost double the number of students. Cooperative relationships also exist with other schools in the area.

Administrative activities include the governing of the residential school; the development of satelite campuses; the initiation and supervision of contractual arrangements with other schools and community industrial resources, the scheduling, placement, and follow-up of students; preservice and in-service training for teachers; fund gathering; information dissemination; and the recruitment of faculty and students.

## CAREER DEVELOPMENT YEARS

### Present Practices - Vocational Agriculture

There are, at present, thirteen programs in vocational agriculture in Nevada. These programs reflect to varying degrees the occupational needs of workers in agriculture, and they serve to supplement the objectives of general and vocational education.

One major problem in vocational agriculture programs is the lack of adequate facilities. Three of the schools offering programs have adequate facilities, but in six of the schools the facilities are far below standard. In these schools, conditions are not conducive to learning; equipment with which to teach is not available, and even good teachers cannot operate successfully. Even when new facilities are built, some districts make little effort to consult specialist in vocational agriculture; and consequently, the facilities designed by the teacher employed may not be adaptable to the programs projected by his successor.

Problems in acquiring and in housing the variety of equipment necessary for a sound program is made more difficult by increased farm mechanization. This calls for more highly specialized equipment and for correspondingly specialized training to operate it.

The retention of teachers, which lends stability to the program, has been generally good. It has been made possible largely through the in-service training programs, meetings under the direction of the teacher-educator and the state supervisor, and by generous community support. Inadequate facilities and a lack of equipment is probably the largest single reasons for teacher turnover.

The Future Farmers of America, the youth group for vocational agriculture students, is the strongest part of the present program. The FFA, by law, is an integral part of the total Vocational Agriculture program and, while membership is voluntary, almost all students belong.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Vocational Agriculture

Vocational agriculture shares with other areas in career development education the general mandates cited in the introduction to this section. There are, are however, several mandates which can be stated briefly that apply particularly to this area:

I. CLASS INSTRUCTION IN VOCATIONAL AGRICULTURE MUST STRESS THE MANAGERIAL AS WELL AS THE OPERATIONAL PHASES OF AGRICULTURE.

As agri-business becomes more complex, those engaged in it must become increasingly sophisticated in managerial techniques. Vocational agriculture must provide the student with an awareness of such complexity and with the knowledge and techniques to deal with it.

### II. THE INSTRUCTIONAL CLASS TIME MUST BE PROPORTIONATELY BALANCED BETWEEN AGRICULTURAL SCIENCE AND MECHANICS.

It is especially important that those areas of science particularly applicable to agriculture be given a strong place in the curriculum. It is equally important that agricultural mechanics be included in the total practicum.

### III. THE LEADERSHIP TRAINING PROGRAM IN THE FFA ORGANIZATION MUST BE A BASIC PART OF THE TOTAL PROGRAM OF EACH DEPARTMENT.

It is especially important to utilize the motivational thrust of the FFA programs to establish and maintain the momentum of the vocational agriculture program.

### IV. THERE MUST BE COOPERATION WITH OTHER SERVICES IN THE USE OF TEACHERS, EQUIPMENT, AND FACILITIES TO BEST PREPARE STUDENTS FOR AGRICULTURAL OCCUPATIONS.

Since agricultural education serves small rural schools, teachers, equipment, and facilities must be shared if the program is to be fully developed; administrators and instructors should be particularly sensitive to the need for the utmost cooperation among all those directly and indirectly concerned with the total education of the students.

### V. THE PROGRAMS MUST PROVIDE AGRICULTURAL TRAINING FOR PERSONS OF ALL AGES AS PREPARATION FOR GAINFUL EMPLOYMENT IN AGRICULTURE.

It is especially important to consider the programs as possible retraining instruments for those who might with such training become more readily employable in agriculture. Such a program must, of course, be flexible and adaptable to individual needs. Indeed, a broad range of educational opportunities in agriculture must be provided to all who are interested in and who will benefit from them.

### VI. STATE DEPARTMENT COOPERATION AND APPROVAL MUST BE SECURED IN ALL PLANNING AND BUILDING PROGRAMS TO ASSURE ADEQUACY IN THE FACILITIES AND CONTINUITY IN THE PROGRAMS.

A building planned to fit the particular needs or desires of a particular vocational agricultural teacher, may be inadequate to meet the needs of a program designed by his successor. Consequently, facility planning should be based on long term considerations and should be designed with maximum flexibility to meet adequately the needs of a variety of programs over a period of years.

### VII. SCHOOLS MUST PROVIDE THE SPECIALIZED AND SOPHISTICATED MECHANICAL EQUIPMENT NECESSARY FOR TRAINING AND FOR OPERATION AND FOR REPAIR IN VOCATIONAL AGRICULTURE MECHANICS CLASSES.

A mechanics course which does not provide laboratory experience with equipment comparable to that which the student must work on in actual practice has relatively little value. While certain mechanical principles may provide a common basis for working on a variety of machines, there is no substitute for supervised experience with machines comparable to those in actual use.

## VIII. SMALL HIGH SCHOOLS MUST CONSIDER ALTERNATE ORGANIZATIONAL STRATEGIES IN ORDER TO MAKE VOCATIONAL AGRICULTURE PROGRAMS ECONOMICALLY FEASIBLE.

Such devises as shared programs among districts, or the combining of agriculture, trade and industry, and distributive education programs within the district should receive special consideration.

## CAREER DEVELOPMENT YEARS

### Recommended Exemplars - Vocational Agriculture

### MODEL

OBJECTIVES: The objectives of vocational and technical education in agriculture reflect the occupational needs of workers in agriculture and supplement the objectives of general and vocational education. Agriculture, in common with other businesses and industries, has experienced rapid and continual change, and the vocational agriculture programs must take these changes into account and must prepare students to meet the needs of the present and the future. It should develop an awareness in the student that the rate of technological change in agriculture occupations makes it mandatory that he continue occupational training throughout his career.

CONTENT: In agricultural science, courses should emphasize basic scientific principles. In biology, for example, basic principles should be firmly established so that upper-level classes in agricultural science may build on this body of knowledge. In this manner, classes in agricultural science will be developed largely as applied biology.

In mechanics classes, instruction in farm machinery, management, repair service, and operation should provide the central core of the program. Structure--including masonry and concrete, electricity and electric motors, as well as certain related fields--should be included in courses in agricultural mechanics. Every program should be supported by adequate facilities and equipment.

Every department should plan a basic first year program including those units of subject matter which are common to the entire program of vocational agriculture. Typical of such programs are agricultural occupations study, record keeping, supervised work experience, farm mechanics and safety, planning, the uses of equipment, painting, and the identification and care of tools and supplies.

METHODOLOGY: The scheduling of the vocational agriculture program should be extremely flexible. For example, programs in farm mechanics should provide for class periods of 90-120 minutes. Other facets of the field can be treated more advantageously in frequent short periods. Courses should be organized around central objectives and in specialized units on a year or semester basis. This flexibility provides opportunity for students, including girls with special interest, to enroll in shorter courses. Each course should be planned so that the subject matter will be distinct from tjat pf other courses. The student who completes four years of vocational agriculture should have complete training in the field. Curricular arrangements should be devised which will permit students to take a combination of vocational courses of the greatest potential use for them.

## CAREER DEVELOPMENT YEARS

### Present Practices - Adult General Education

In 1968, public school continuing-education programs were offered in twelve Nevada counties to 21,848 enrollees. The adult general-education portion of the continuing-education program offered instruction to 8,556 enrollees. Community service courses, such as speed writing and dressmaking offered in response to local demand, composed the minor portion of the adult program. In recent years, courses for persons with special needs arising from socio-economic, physical, and educational handicaps have received increased emphasis. Adult elementary education, vocational training and retraining, and adult programs leading to a high school diploma compose the great bulk of the adult education program in Nevada.

The Nevada Youth Center for Boys in Elko is not part of the public school system; thus, this institution cannot give credits toward a high school diploma. However, education programs at the State Prison and the Nevada Youth Training Center for Girls at Caliente fall by contract within the scope of the public school system and these institutions offer credit.

As a rule, elementary education programs for adults and a limited number of vocational programs are financed by Federal and State funds. But in the general areas, such as programs designed for community service and those leading to a diploma, are not so funded and must be fully supported by tuition. Most tuition-supported classes cannot be scheduled unless a minimum of ten or an average of fifteen students register. Thus, many badly needed courses may not be available, even though tentatively listed in the adult education program. This is particularly true in counties with small populations. Ironically, financial barriers preclude participation in adult education programs by those most in need of them.

Adult education provides for the public complementary activities designed to lead to improved citizenship, to enhanced earning power, to social adjustment, and to more profitable use of leisure time. County school administrators are charged with developing and implementing programs in adult education which are appropriate to the needs of their respective counties. Such programs are subject to continuing evaluation and critical scrutiny to insure their compatibility with the long-range and immediate needs of the community.

Although the trend toward full-time programs is accelerating, adult education programs are usually housed in high school buildings, and high school facilities are used. Furniture, restrooms, and standard equipment are satisfactory, but storage space for materials is lacking and school library facilities are not available. Lack of specific planning for use of the building and for multiple staffing arrangements is usually responsible for such difficulties.

There are three areas in the adult general education curriculum: (1) Adult elementary education, (2) The adult high school diploma program, and (3) The community service programs. Of these programs, basic adult elementary education aims at developing functional literacy in those who cannot read at the eighth grade level. Of two programs offered, one is designed for students whose native language is English and the other is designed for those for whom English is a second language. The adult high school diploma program affords an opportunity for adults to earn high school diplomas in accordance with State requirements. The community service programs are widely varied and respond to community needs and desires. Most of these programs are not given for credit.

In addition to these established programs, short-term classes, such as those recently initiated for teacher aide and for basketball officials, are established when interest or need is demonstrated. If the need continues, such programs are incorporated into the appropriate section of the established curriculum.

More permanent long-range programs are determined on the basis of requests from individuals, civic and professional groups, trade unions, from the office of Employment Security, and many others. The impetus for new areas of instruction may likewise come from local industry. Such programs generally become permanent.

## CAREER DEVELOPMENT YEARS

### Emerging Mandates - Adult General Education

I. **IF NEVADA WISHES TO GUARANTEE EQUAL OPPORTUNITY TO THE PEOPLE OF LOWER SOCIO-ECONOMIC GROUPS, THE STATE MUST ESTABLISH A SYSTEM TO FINANCE CONTINUING EDUCATION PROGRAMS FULLY.**

Students who enter the adult education program to secure a high school diploma come predominantly from lower socio-economic groups. Most of them are employed and must continue this employment because of economic necessity. Lack of a diploma seriously impedes their earning potential and their economic position is frequently precarious. Hence, those who need the program most are those who can least afford it. State financial support for the adult diploma program would help these students. Socio-economic and other factors indicate that a system of adult education supported by the State must be established.

II. **A STRONG ADULT EDUCATION PROGRAM MUST BE PROVIDED FOR EACH CORRECTIONAL INSTITUTION THROUGHOUT THE STATE.**

Quality education programs should be made available at correctional institutions to support programs of rehabilitation. Properly conceived and administered such programs could be among the most constructive influences in the institutions.

III. **INNOVATION IN CURRICULUM AND METHODOLOGY MUST BE INCORPORATED IN THE ADULT EDUCATION PROGRAM.**

In many ways, innovations are more necessary in the adult programs than in the regular secondary program. It is particularly important to consider that many of those enrolled in the adult education program have encountered difficulty in traditional school programs. In the adult program, therefore, experimental innovative procedures are vital. Whatever risk may be involved is wholly justifiable. Every effort must be made to individualized instruction.

IV. **ADULT EDUCATION CLASSES MUST NOT BE SCHEDULED DURING THE EARLY EVENING HOURS ONLY.**

Classes and facilities should be available to unemployed students. Furthermore, although programs scheduled in the early evening may meet the needs of those who work from 8:00 a.m. to 5:00 p.m., they do not meet the needs of those who must work in the evening or at irregular times. More emphasis on extended adult learning necessitates a more flexible scheduling.

V. **CAREFULLY PLANNED CORRESPONDENCE COURSES FOR ADULTS MUST BE DEVELOPED IN ORDER TO MAKE PROGRAMS AVAILABLE TO ALL ADULTS.**

Correspondence courses in which work can be done at the student's convenience would be especially useful for those who must travel or for those whose work schedules are unusual. When insufficient enrollment fails to make a class self-supporting, a correspondence course might be substituted. Correspondence courses must be "learning-oriented" as opposed to "content-oriented."

**VI. EFFECTIVE PLACEMENT PROGRAMS MUST BE ESTABLISHED IN THE ADULT EDUCATION PROGRAM.**

Testing programs must accurately place students, but the students must also be able to enter at any point of a continuum. To be effective, a placement program must be supported by a highly individualized curriculum and a flexible and enlightened policy of granting academic credits.

**VII. PUBLIC SCHOOL BUILDINGS AND FACILITIES MUST BE ADAPTED AND CONSTRUCTED SO THAT EVERY SCHOOL IN THE STATE BE ABLE TO HOUSE CONTINUING EDUCATION PROGRAMS.**

In the public interest school buildings and facilities must realize maximum use. The adult education program can make such use possible only when the facilities and the furnishings are readily adaptable to adult students, teachers, and administrators.

**VIII. STEPS MUST BE TAKEN THROUGH THE NORTHWEST ASSOCIATION TO ACCREDIT THE ADULT EDUCATION PROGRAMS THROUGHOUT THE STATE.**

Such accreditation may provide for a systematic interstate transfer of credit and for a means of evaluating and upgrading the quality of the adult education courses.

**IX. EVERY SCHOOL DISTRICT IN THE STATE OF NEVADA MUST DEVELOP AND MUST ADOPT AS OFFICIAL POLICY ADEQUATE REGULATIONS AND PROVISIONS FOR ADULT EDUCATION.**

A meaningful published declaration of policy will allow for the systematic development of adult education systems and possibly for the establishment of adult education programs where they do not now exist.

**X. COURSES FOR PREPARING ADULT EDUCATION INSTRUCTORS MUST BE OFFERED AS PART OF THE TEACHER TRAINING PROGRAM AT THE UNIVERSITY OF NEVADA.**

Teaching in adult education requires special competencies and an approach that differs considerably from that commonly used in the day school undergraduate program. The adult-education teacher requires special training to be effective.

**XI. STATE STATUTES MUST PROVIDE THAT ALL ADULT EDUCATION PROGRAMS BELOW THE BACCALAUREATE LEVEL, EXCLUSIVE OF IN-SERVICE OR PRESERVICE EDUCATION OFFERED TO EMPLOYEES BY EMPLOYERS, BE EITHER ADMINISTERED OR LICENSED BY THE NEVADA PUBLIC SCHOOL SYSTEM.**

Such a procedure makes available to all adult education programs the consultative services of the Nevada Department of Education and allows for the development of programs sequential to and coexistent with existing public school programs.

### XII. ADEQUATE FINANCING MUST BE AVAILABLE FOR RESEARCH AND DEMONSTRATION PROJECTS.

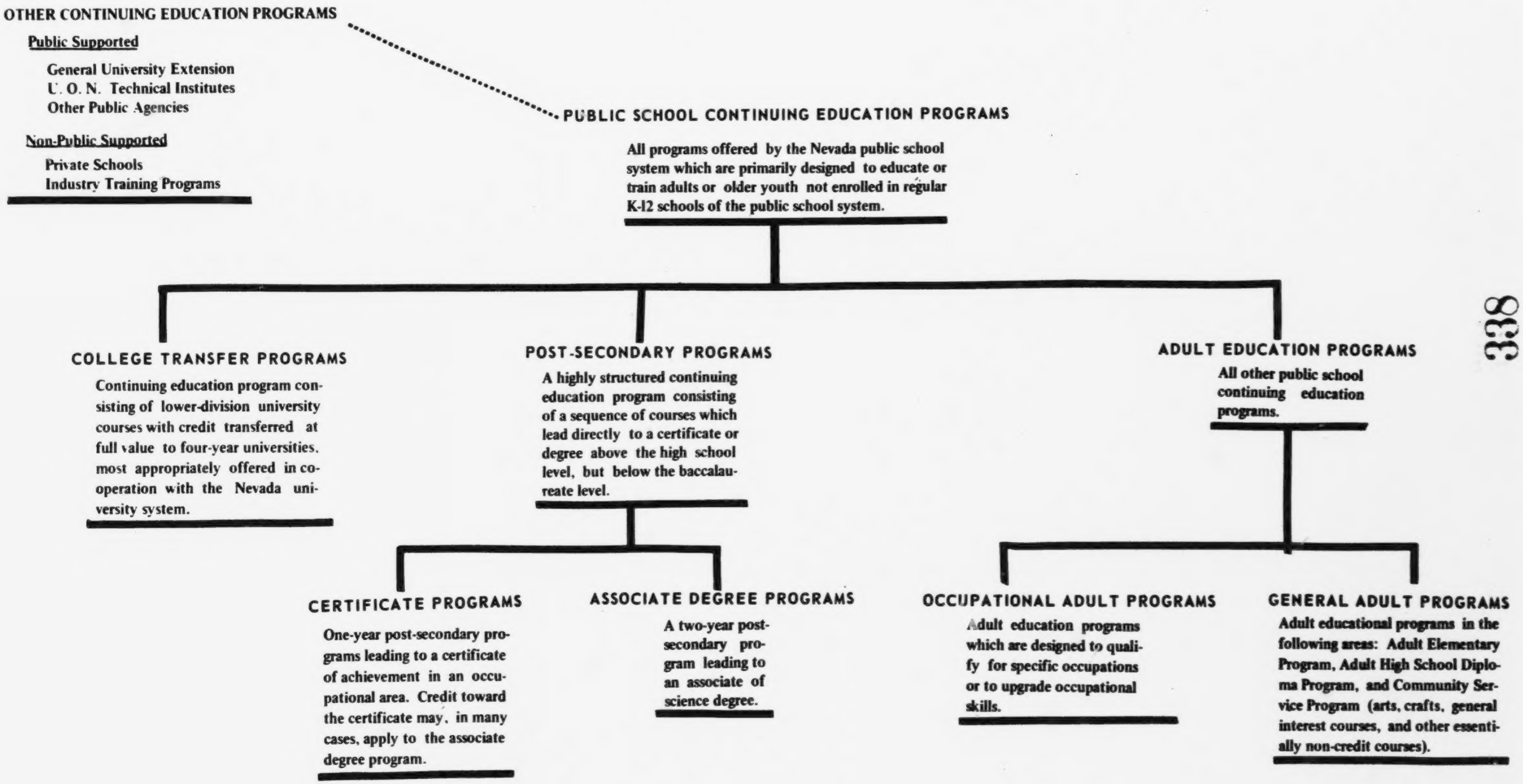
Research and implementation of research requires financial support; research cannot be done during the spare time of the teachers or administrators. Exemplary and demonstration projects likewise require support. These projects must be instituted with the understanding that their continuation will depend on their productivity. Even a demonstration project which proves unproductive but which has increased knowledge and understanding may prove useful to the total program. Because such projects cannot be instituted on the basis of guaranteed success, they must be financed with funds other than those supporting regular courses.

### XIII. THE COUNTY AND THE STATE MUST PROVIDE FOR LEADERSHIP IN ADULT EDUCATION.

Both the State Department of Education and each county should make every endeavor to provide leadership through the hiring or assigning of adequate staff to promote, develop, and extend adult education.

## NEVADA PUBLIC SCHOOL CONTINUING EDUCATION

## CONCEPTUAL FRAMEWORK AND DEFINITION OF TERMS



**OTHER CONTINUING EDUCATION PROGRAMS**

Public Supported

- General University Extension
- U. O. N. Technical Institutes
- Other Public Agencies

Non-Public Supported

- Private Schools
- Industry Training Programs

**PUBLIC SCHOOL CONTINUING EDUCATION PROGRAMS**

All programs offered by the Nevada public school system which are primarily designed to educate or train adults or older youth not enrolled in regular K-12 schools of the public school system.

**COLLEGE TRANSFER PROGRAMS**

Continuing education program consisting of lower-division university courses with credit transferred at full value to four-year universities, most appropriately offered in cooperation with the Nevada university system.

**POST-SECONDARY PROGRAMS**

A highly structured continuing education program consisting of a sequence of courses which lead directly to a certificate or degree above the high school level, but below the baccalaureate level.

**CERTIFICATE PROGRAMS**

One-year post-secondary programs leading to a certificate of achievement in an occupational area. Credit toward the certificate may, in many cases, apply to the associate degree program.

**ASSOCIATE DEGREE PROGRAMS**

A two-year post-secondary program leading to an associate of science degree.

**ADULT EDUCATION PROGRAMS**

All other public school continuing education programs.

**OCCUPATIONAL ADULT PROGRAMS**

Adult education programs which are designed to qualify for specific occupations or to upgrade occupational skills.

**GENERAL ADULT PROGRAMS**

Adult educational programs in the following areas: Adult Elementary Program, Adult High School Diploma Program, and Community Service Program (arts, crafts, general interest courses, and other essentially non-credit courses).

## CAREER DEVELOPMENT YEARS

### Recommended Exemplars - Adult General Education

### MODEL I: Design of the System

OBJECTIVES: Designing a system of continuing education programs is most imperative. A systematic structure must be established whereby any adult can receive any kind of instruction below the baccalaureate level he needs from the public schools of Nevada.

CONTENT: The chart titled "Nevada Public School Continuing Education: Conceptual Framework and Definition of Terms" describes in general terms a possible structure of such a system.

METHODOLOGY: The section of the organizational chart "Public School Continuing Education Programs" does not necessarily represent the adult education divisions of local school districts, although the "Post-Secondary Programs" and the "Adult Education Programs" are currently operative on the basis described. The continuing education portion of a public school system might be administered as part of a community college system under the State Board of Education or as a separate entity.

### MODEL II: Individualized Instruction Program

OBJECTIVES: The basic objectives of individually prescribed instruction are: (1) To enable each student to progress at his own rate in units of study in a learning sequence. (2) To develop in each pupil a demonstrable degree of mastery. (3) To develop self-initiation and self-direction of learning. (4) To foster the development of problem-solving through processes. (5) To encourage self-evaluation and motivation for learning. (6) To include constant evaluation of the educational progress of each student.

CONTENT: The individually prescribed instruction programs were developed by Research for Better Schools in cooperation with the University of Pittsburg in reading, mathematics, and science. The reading program is currently operative in the Clark County School District's adult education division. It is the only IPI program on the adult level in the nation. This program is organized into thirteen subareas with a total of 450 measurable behavioral objectives. These behavioral objectives are achieved through the completion of a series of work sheets or other material specifically designed to develop related skills. An example of one such skill oriented exercises follows:

F Evaluative Comprehension (3) LRDC 6/68

Name______________________________ Date________________

DIRECTIONS: Read the story, then follow the directions below.

It was the bottom of the ninth inning, and the score was tied. Tom walked slowly out of the dugout, thinking that this was his chance to be a hero. He swung his bat to loosen up then stepped into the batter's box. The pitcher stretched and launched the ball. Tom gulped, took a mighty swing and missed the ball completely. Tom eyed the pitcher and waited. Again the ball sped from the mound toward Tom. At the crack of the bat, the crowd began to roar. They did not stop roaring until Tom had jogged to home plate.

Put an X on the line beside the sentences that do not tell about the main idea in the story above.

____ It was the bottom of the ninth inning, and the score was tied.
____ Tom walked slowly out of the dugout.
____ Tom missed the first ball.
____ Tom wore a blue cap.
____ The crowd roared when Tom hit the ball.

Supplementary materials currently being used include the SRA reading program, programmed texts, slides, films, and filmstrips.

METHODOLOGY: Generally speaking, a student's progress is determined on the basis of pretests, curriculum-imbedded texts, and post=tests, as well as on the observations of the teachers and the results of performance on skill sheets. Each of the preceding criteria offers additional information as to the strength and weaknesses of the student. A low score on a particular test, for example, may indicate a low score in evaluative comprehension. Worksheets may then be prescribed that will help each student correct his own weaknesses areas.

The teacher in the IPI program is not the traditional lecturer but a diagnostician and prescriber. He determines exactly which materials are best suited to each individual. Choices are made on the basis of answers to the following questions: (1) Which skills would the student be working on? (2) Which skill sheets should be prescribed? (3) Which instructional techniques should be prescribed and instituted? (4) What alternative strategies can be devised to help this student master the prescribed skills?

Each instructor in this program can comfortably teach thirty students, and for every four teachers it is recommended that one teacher aide be employed.

Because of the flexibility of the structure of this approach, large group activities, small group activities, individual consultations, audiovisual presentations, and other activities can all be programmed into the class, thus allowing a well rounded program to develop.

This individualized approach, combined with other effective ways to reach students, might easily become a major curricular pattern for adult education in Nevada.

## MODEL III: A Short-Term Program

OBJECTIVES: When sufficient local interest demonstrates a need, short-term classes may be set up to answer these needs. The purpose of such classes will be as varied as the needs expressed. Two notable examples of this kind of course were offered in Washoe County in 1968--one for training teachers' aides and another for training for basketball officiating. In general, the feasibility of such courses depends on demand and on the availability of teachers and proper facilities. Elaborate planning generally is not necessary if an established framework of adult education exists.

CONTENT: The content of a course will vary in order to answer need. In short courses the content is usually intensely practical and designed to meet a limited and immediate demand rather than a long=range need. Content in a short-term course may be dependent upon the experience of the available instructor. Frequently as in the examples cited above, authoritative texts might not be readily available and content especially dependent upon the resourcefulness of the instructor.

METHODOLOGY: In any course in adult education, every effort should be made to insure maximum student involvement. Many of the students in the adult education program have had disastrous experiences during their regular school years, making it especially important that methods in the adult education program be fresh, vital, and imaginative. Methods in a specific short-term course should be tailored to the demands of the course, the ability and interest of the student, and the pedagogical strengths of the instructor.

E1

ED047123

# Planning Education
# FOR NEVADA'S GROWTH

## A MASTER PLAN FOR EDUCATION

MENT OF EDUCATION

ED047123

# TABLE OF CONTENTS

## Volume II

Refer to Volume I for:

I. Organization and Administration

II. Curricular Patterns

III. School Finance .................................... 1

IV. School Facilities .................................... 15

V. School Services .................................... 37

The Year-Round School .................................... 39
Pupil Transportation .................................... 49
School Lunch Division .................................... 55
Teacher Education .................................... 65
Teacher Supply and Demand .................................... 75
Teacher Aides .................................... 79
Team Teaching .................................... 85
Library Services .................................... 99
Educational Television .................................... 107
The Inquiry Method .................................... 117
The Non-Graded School .................................... 129

U.S. DEPARTMENT OF HEALTH, EDUCATION
& WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

# SCHOOL FINANCE

## Present Practices

Public schools in Nevada began operating during the 1967-68 school year under the Nevada Plan for School Financing adopted by the 1967 session of the state legislature. During the ten years prior to 1967, school financing was provided under a plan known as the Peabody Plan which distributed monies to school districts in accordance with certificated employees, pupils in average daily attendance, transportation costs, and wealth.

The new plan was developed in response to an apparent need to improve financial support for public education within concepts manifest in legislative philosophy regarding public education, the most important of which is expressed in this statement, which is part of the act, "The proper objective of state financial aid to public education is to insure each Nevada child a reasonably equal educational opportunity."

One further philosophical concept was expressed by proponents of the Nevada Plan, which is that financial support to schools should be calculated from a unit count as free as possible from arbitrary manipulation, and once determined, should be available to local school districts to deploy in accordance with local decisions with no strings attached. The State Department of Education takes a position in favor of the same concept.

The concept is manifest in the plan because basic support is determined by simply multiplying a count of A.D.A. times a number of dollars per pupil. No school district is required to spend any particular part of its support for any particular purpose.

For several reasons, because enrollments are increasing; because public education is called upon to do more to serve more segments of the population; because educators recognize new and better ways to accomplish expanding education objectives; and because inflationary pressures are constantly increasing the prices of education items, further improvements to financing education must be realized.

Such improvements can be realized again only through renewed and continuous efforts to accomplish the same objectives of adequate school finance, namely:

1. Increase financial resources.

2. Provide a sufficient range of variations among reliable factors that can be counted, and that are known to relate directly to necessary differences in expenditure rates per pupil.

3. Provide sufficient flexibility to make necessary supplementary allotments to low wealth and/or high cost districts.

The State Department of Education maintains a system of data gathering and applies such data to statistical analysis for the purpose of providing comparisons and trends that will furnish bases upon which financial decisions can be made wisely.

Regarding objective number 1, the following is now offered:

Financial resources for maintenance and operation of public schools in Nevada currently are provided from state, county, local, and federal sources.

Revenue receipts have been as follows for the listed years:

| SOURCE | 1967-68 | 1966-67 | 1965-66 |
|---|---|---|---|
| State | $33,719,356 | $35,012,537 | $31,023,203 |
| County | 32,142,550 | 22,276,557 | 20,416,948 |
| School District | 1,534,781 | 981,339 | 562,517 |
| Federal | 5,308,556 | 5,201,654 | 4,569,848 |
| Totals | $72,705,243 | $63,472,087 | $56,572,516 |

These amounts do not include non-revenue receipts realized from the sale of bonds nor monies provided for the purpose of meeting debt obligations.

## State Sources

Monies provided by the State are realized from appropriations from the state general fund, proceeds of the one-cent school-support tax paid on out-of-state sales, interest earnings of the state permanent school fund, and proceeds of mineral/land leases on public domain. They are distributed to school districts by formula, or grant, for the following purposes: (1) To meet the state's share of the guaranteed basic support formula; (2) to assist the financing of courses in driver education; (3) to assist the financing of courses conducted under the state plan for vocational education; (4) to assist the financing of construction of school facilities for pupils who are wards of the state or whose parents or guardians are employees of the state. They also pay the employer's share of retirement contributions for public school teachers.

## County Sources

Monies provided by the counties are realized from ad valorem taxes, motor vehicle privilege taxes, county utility franchise taxes, and a local school support sales tax levied, beginning July 1, 1967, at the rate of one cent per dollar.

## School District Sources

Monies provided by the local school district are realized from rents, donations, student fees, student fines for loss or damage to school property, and sales of supplies, services, or property.

## Federal Sources

Monies provided by the federal government are appropriated by Congress and granted to educational agencies for various purposes, projects, and programs. Also, proceeds from national forests and wildlife refuges are shared with school districts. Major purposes for which grants are made include: (1) School lunch and milk programs; (2) operation and construction funds allotted for pupils whose parents or guardians work on, or live on, federal property; (3) improvement and expansion of programs in critical subject area fields (science, mathematics, foreign language, etc.), in guidance services, and in acquisition and use of library and instructional materials; (4) development of innovative and improved educational programs and methods; (5) compensatory programs for socio-economically deprived children; and (6) financial assistance for programs in vocational-technical education.

Over recent years demands for increased financial support for increased enrollments of pupils have generally been greater than the increases in tax receipts from continuing taxes at same tax rates. This is particularly true of the ad valorem tax. Increases in sales tax receipts have closely followed increases in enrollments.

A significant increase in financial support per pupil would require a new tax or an increased rate of collection of a current tax.

Consideration of new taxes or increased tax rates will certainly be involved with questions both as to which tax and at what level of collection, state or local. Such consideration should recognize that currently about 80 percent of total resources are provided in the basic support formula and 20 percent from other sources, mainly the 80 cent permissive ad valorem tax, motor vehicle taxes, and 75 percent of PL 874 receipts.

Of the 80 percent provided in basic support, the state provides 45 percent from the distributive school fund and local district taxes provide 55 percent from the 70 cent mandatory ad valorem tax, the one cent school support sales tax, and 25 percent of PL 874 receipts.

These percentages are statewide averages and do not apply to all districts. In districts of lowest wealth the state provides as much as 70 percent of total resources while in two districts, Douglas and Eureka, the state provides no basic support.

Regarding objective number 2, the following is now offered:

Expenditures for the maintenance and operation of public schools are recorded in accounts specified for functions performed and for categories of objects paid for. Major function identifications include: (1) Administration; (2) instruction; (3) pupil/community services, such as health, attendance, transportation, food, extra-curricular activities, etc.; (4) plant operation and maintenance; (5) fixed charges, and (6) capital outlay. Major categories of objects paid for include facilities (land, buildings, and equipment); (2) salaries; (3) supplies; (4) utilities; and (5) other expenses.

Expenditures have been as follows for the listed years:

| FUNCTION | 1967-68 | 1966-67 | 1965-66 |
|---|---|---|---|
| Administration | $ 1,628,713 | $ 1,353,207 | $ 1,272,510 |
| Per Pupil | 15.83 | 13.78 | 13.22 |
| Instruction | 51,832,278 | 44,597,254 | 40,450,929 |
| Per Pupil | 503.75 | 454.29 | 420.16 |
| Pupil/Community | 4,285,042 | 3,622,660 | 3,618,551 |
| Per Pupil | 41.64 | 36.90 | 37.59 |
| Plant Operation and Maintenance | 8,273,207 | 7,592,364 | 6,924,090 |
| Per Pupil | 80.40 | 77.34 | 71.92 |
| Fixed Charges | 1,552,641 | 1,284,313 | 1,102,240 |
| Per Pupil | 15.09 | 13.08 | 11.45 |
| Capital Outlay | $19,079,725 | $11,944,536 | $20,910,436 |
| Object: | | | |
| Facilities | 19,079,725 | 11,944,536 | 20,910,436 |
| Salaries | 56,392,542 | 48,227,573 | 44,215,574 |
| Per Pupil | 548.07 | 491.26 | 459.26 |
| Supplies | 3,419,080 | 3,444,515 | 3,215,079 |
| Per Pupil | 33.23 | 35.09 | 33.39 |
| Utilities | 1,868,184 | 1,811,378 | 1,335,496 |
| Per Pupil | 18.16 | 18.45 | 13.87 |
| Other Expenses | 6,010,637 | 5,056,621 | 4,675,786 |
| Per Pupil | 58.42 | 51.51 | 48.57 |

Expenditures shown include those for all capital acquisitions, most of which were made possible by monies borrowed through sale of bonds. Not included are expenditures for debt service and bond redemption. Three districts have no outstanding debt and, therefore, make no expenditures for debt service. Debt service expenditures in other districts range from about $60 to $125 per pupil. Bonded debt obligations are generally greater in districts that have experienced greater growth rates during recent years.

1. The greater part of expenditure requirements relate more directly to the number of groups of pupils organized than to the number of pupils.
2. The factor that relates most directly to the number of pupil groups is the certificated employee.
3. Some expenditure requirements relate directly to the individual pupil.

4. Inflationary pressures are greater on prices for personal services than on manufactured commodities. This pressure is demanding that higher salaries be paid to teachers and other school district personnel.

In view of the preceding statements it is evident that greatest improvement in the basic support formula can be realized through applying the greater part of increased financing to the certificated employee allotment factor of the formula.

## SCHOOL FINANCE

### Emerging Mandates

Optimum success in planning effective financing of public education requires a three-step process, each closely interrelated: (1) Forecasting expenditure requirements necessary to meet education objectives, (2) developing sources of revenues that will meet expenditure requirements, and (3) seeking and initiating education program processes that will improve efficiency and reduce unit costs.

Establishment of objectives demands evaluative consideration of programs and services to be provided to pupils as well as consideration of pupil population segments to whom programs and services should be provided.

Accurate forecasting of expenditures required demands a knowledge of the relationship of unit costs to programs and services.

Unit costs are determined from prices paid for the objects consumed by the procedures and processes applied to programs and services. Improving efficiency demands information about object prices and consideration of how application of dollars might be shifted for greater value received.

In order to meet the foregoing demands, a school district must establish *a system for collecting*, tabulating, and analyzing financial data in relation to its programs, services, and processes so that reliable value judgments can be made regarding prices, unit costs, and objective accomplishments.

## SCHOOL FINANCE

### Recommended Exemplars

At every decision-making level in the education enterprise, data records of value to the decision makers are provided in order that optimum values can be expected from decision results.

Major levels and related items of concern are:

1. Pupils. Data records at this level provide information that suggests reliable answers to these questions:
   a. Should the pupil be provided the benefits of a public education program or service?
   b. If the answer is yes to a., above, into which program or set of programs should he be scheduled?
   c. Does the entire set of education programs and services provided by the district include sufficient choices to permit the full scheduling of all its pupils?
2. Program or Service Facility Unit (Classroom, Laboratory, Office, Warehouse, School Plant, etc.). Data records at this level provide information that suggests reliable answers to these questions:
   a. Do the procedures and processes applied produce optimum results in terms of objectives of the unit?
   b. Should some procedures and processes be eliminated or reduced?
   c. Should some procedures and processes be added?
   d. Are prices paid for objects consumed proportionate to accomplishments?
3. School District. Data records at this level provide information that offer reliable answers to these questions:
   a. Are there similarities among the various program and service units of the district and among the pupil-group segments of the district, such that multiples of similar units can be observed as a single group of units?
   b. If the answer is yes to a., above, is there a system of data accumulation about the similar units that provides periodic and timely data information that can be applied to evaluative processes and to the forecasting of trends, especially as programs, unit costs, and financial resources are interrelated?
   c. If the answer is yes to a. and b., above, to what extent should decisive jurisdiction be placed at one place of authority where decisions will be made for all similar aspects of similar units?

d. Are the data systems compatible with those of other districts of the state, and other districts in the nation in order that comparisons of information about common units can be made?

4. State Department of Education. Data records at this level provide information that enable reliable answers to these questions:

   a. Is there an effective system of data accumulation about the pupils, staff, organization, programs, unit costs, and facilities of the various school districts of the state?

   b. Does the data system capture all elements of information pertinent to the recognition of similarities and differences among the data base units of the various districts?

   c. Are statistical analyses applied to data so that determination can be made about what ways, and to what extent, data compare (both similarities and differences) among the several districts?

   d. Are results of statistical analysis reported and made available to district, state, and federal agencies to guide considerations basic to decisions about public education?

# Forecasting Financing Requirements of Public Education in Nevada

During the three years, 1965-66 through 1967-68, the following relationships have existed among categorical items of expenditures shown and total expenditures for maintenance and operation of public school services:

| | Percentage of Total Expenditures | | |
|---|---|---|---|
| | 1965-66 | 1966-67 | 1967-68 |
| Certificated salaries | 71% | 70% | 70% |
| Non-certificated salaries | 12% | 13% | 14% |
| Supplies | 6% | 6% | 5% |
| Other non-salary costs | 11% | 11% | 11% |

During the same three years, school districts in Nevada employed one certificated employee to serve nonteaching administrative, supervisory, or special service duties for every seven teachers employed.

Average salaries paid to teachers and nonteaching certificated employees in 1968 were such that for every dollar in salary paid to teachers, twenty cents was paid in salary to nonteaching certificated employees.

Based upon these ratios of employee and expenditure relationships, the following formula could be applied to determine the average expected cost of maintaining and operating an education program requiring the services of a certificated teacher.

For each $1.00 of salary cost for classroom teachers, there would be required $0.20 for nonteaching certificated employee services, $0.20 for non-certificated employee services, $0.10 for supplies, and $0.19 for other non-salary expenses.

To determine the average expected cost per pupil, the program cost per teacher could be divided by the average number of pupils served by teachers of the program.

For example:

Forecast of Expected Expenditure Requirements for Operating a Preschool Program

Assumptions:

1. Each teacher and pupil group will require a classroom facility similar to other classroom facilities of the school in which established.

2. Administrative and supervisory support will be required in similar proportion to current programs.

3. Plant operation and maintenance, utilities, fixed charges and other

operation support will be required in similar proportion to current programs.

Then, for one program unit, costs would be at 1968-69 averages:

| | | |
|---|---|---|
| 1. | For teacher salary | $ 8,321 |
| 2. | For certificated nonteaching employee services | 1,664 |
| 3. | For non-certificated employee services | 1,664 |
| 4. | For program and operational supplies | 832 |
| 5. | For fixed charges and other non-salary expenses | 1,581 |
| | | $14,062 |

This expenditure allowance would provide for a full school day of program operation during a regular school year. If, during the school day, forty enrollees could be served, with an A.D.A. of thirty-eight, the cost per pupil A.D.A. would be $370.00.

If the program design requires operating practices different from the assumptions, and if such differences will change usual expenditure rates, the differences would need to be identified, priced, and their effect applied to total expenditure requirements.

Example 2:

Forecast of Expected Expenditure Requirements for Operating a Post-High School Vocational Program

| | | |
|---|---|---|
| 1. | For teacher's salary | $ 8,321 |
| 1a. | For usually higher salaries for vocational teachers | 173 |
| 2. | For certificated, nonteaching employee services | 1,664 |
| 2a. | For additional vocational guidance | 500 |
| 3. | For non-certificated employee services | 1,664 |
| 4. | For program and operational supplies | 832 |
| 4a. | For additional program supplies | 600 |
| 5. | For fixed charges and other non-salary expenses | 1,581 |
| 5a. | For additional maintenance of equipment | 400 |
| | | $15,735 |

Because this program can be operated in an existing facility at a time other than day school program use, the following reductions in costs can be realized:

| | | |
|---|---|---|
| 1. | No additional custodial services | $530 |
| 2. | No additional fixed charges for insurance and plant maintenance | 450 |
| | Total reduction | $980 |

Total cost of one full-time program - $14,755

If the program were to be operated less than a regular full day, or for less than a regular school year, appropriate fractional parts of the $14,755 could be calculated.

Also, per pupil costs could be calculated by dividing the program cost by the number of pupils served. In this last example, if each program were to serve an average of twelve pupils, the average cost per full-time pupil would be $1,230.

Statewide costs and financing requirements could be calculated after determination of unit costs per program or per pupil. For example, at the rates expressed in the cost example for a preschool education program, if there were 8,000 preschool pupils in the state to be served, the total indicated cost would be 8,000 times $370, or $2,960,000. In the case of the post high school vocational program, if there were 500 pupils in the state to be served, the total indicated cost would be 500 times $1,230, or $615,000.

Relationships among kinds of employees, categories of expenditures, and unit costs for operating programs have not considered expenditures necessary to establish facilities that would be needed to initiate programs. Generally, such expenditure requirements are provided from proceeds of bond sales, with no assistance from state aid. Any additional facilities that would be needed for additional programs would have to be priced, and financing arranged for their acquisition.

The foregoing formula and examples are offered as means for forecasting expenditure requirements of new educational programs.

Another area of concern about financing public education will develop if decisions are made to extend the length of the school year for pupils now being served. Such a decision would result in proportionately greater expenditures for salaries of teachers and other employees whose work year would be extended, for salaries of employees that would need to be added, if any, because of the longer school year, and for purchase of added supplies that would be consumed during the longer period of the school year.

The longer school year should have very little effect upon expenditures for plant maintenance, insurance premiums, and similar fixed charge expenses. Expenditures for utilities and plant operation would be affected by longer school year, but it is not likely that the increased requirements would be fully proportional to the longer period, because many of these costs, such as for sewer, water, heating, communications, and care of grounds, do not correlate closely to to whether pupils are in school or not.

For example, if the school year were to be extended one school month (four weeks) beyond the usual school year that now extends over 38 weeks, the increase in the school year would be 10.5%. Referring back to unit cost relationships in the previous formula, the following forecast of effects could be made:

| | Current costs per 38 weeks school year | Increase for additional 4 weeks | | New costs per 42 weeks school year |
|---|---|---|---|---|
| | | Percent | Amount | |
| Teacher's Salary | $ 8,321 | 10.5% | $ 875 | $ 9,196 |
| Nonteaching Cert. Employees | 1,664 | 8.0% | 133 | 1,797 |
| Non-Cert. Employees | 1,664 | 9.0% | 150 | 1,814 |
| Supplies | 832 | 10.5% | 87 | 919 |
| Fixed Charges & Other Nonsalary Expenses | 1,581 | 5.0% | 78 | 1,659 |
| Totals | $14,062 | 9.3% | $1,323 | $15,385 |

In terms of overall effect on expenditures for maintenance and operation of public schools in Nevada, a four week increase in the length of the 1967-68 school year would have called for expenditures amounting to $6.3 million more than the $67.7 million spent.

Value received from increased annual expenditures applied to extending the school year for all pupils would need to be measured in terms of the value of the more extensive and complete levels of educational achievement that pupils could reach over a shorter period of calendar years.

A decision to extend the time that school plants will be used to serve pupils scheduled during rotating periods such that the school year for pupils will remain the normal 180 days, would introduce different financial implications.

If school plants were to be utilized during 50 weeks of the year, each pupil could be scheduled to school attendance during 36 of the 50 weeks. This would permit each school plant to serve one-third more pupils than it now serves. If the one-third more pupils were available immediately to be so scheduled, and if the currently offered programs were to continue under current organization practices, then per pupil expenditures for operation would not change. Per pupil expenditures for facility acquisition and maintenance would be reduced.

If a school district now owns sufficient facilities to serve its total current enrollment during a 38 week school year, the financial implications could not prevail until after its enrollment had increased by one-third.

## SCHOOL FACILITIES

### Present Practices

Most school buildings in Nevada were designed by architects before the districts had established long-range plans. School administrators and boards often ask architects to submit plans for a building before they determine what programs will be offered in the new facility. Consequently, the architectural design directly influences the programs that the district can offer because educators have not planned long-range programs on determined what types of programs should be offered.

The tenure of administrators and terms of board members are relatively short; consequently, persons responsible for site selection, financing, and initiating building programs defer problems to their successors. Thus, long-range plans for site acquisition and construction are lacking in many districts in Nevada. In some instances, available funds are utilized for maintenance and construction projects that are of a critical nature, meeting only the most pressing problems of the district. Older buildings are often remodeled or expanded, and the school districts must continue to use an old building until the additions, as well as the original building become obsolete.

School building projects are initiated at the district-wide level by administrative staff or members of the board of trustees. Most districts recognize that teachers and principals should be involved in the planning process and attempt to consult them in some way. In the larger districts teachers have been involved in program planning and curriculum development projects for some time. The materials that have been produced usually contain implications for building design.

Numerous in-service education classes have been held throughout the State. Teachers have been made aware of trends in education, particularly in their specialized area, but often they are unable to change their program because of equipment and building limitations.

Teachers and building principals are not usually involved in the plant planning process during the early stages but are often consulted when the architect has completed the preliminary plans. At this stage, only minor changes can be made because the district board and administration have committed the district to a particular design.

Nevada school districts have been in an advantageous position to acquire school sites. It has been possible to acquire large tracts of federal and privately owned land at nominal cost. In some cases, land developers have set aside potential school sites and offered them to the district at reasonable prices. Many districts follow the current recommendations of the State Department of Education and Counsel of Educational Facility Planners regarding site sizes. However, in some cases, districts have found it necessary to expand or build on small sites. Some districts have made concerted efforts to project building needs and acquire property well in advance. On the other hand, many districts have been unable to develop fully existing sites due to financial limitations, geographic problems or enrollment limitations.

A recent survey revealed that 221 public schools in Nevada are built on approximately 2,455 acres. Schools constructed prior to the initiation of county school districts generally have smaller sites than those constructed in recent years.

Larger areas of some school sites remain undeveloped. Decorative landscaping and other school site improvements are often cut from new construction projects. Usually, districts are not able to pay for site improvement projects with other governmental agencies to improve school district property, thus making it useful to the community.

The Department of Education advises school districts to acquire sites that are safe for school purposes. Factors to be considered include atmospheric conditions, noise sources, light obstructions, traffic conditions, adjacent hazards, and zoning.

Many schoolrooms in Nevada are extremely small. At present less than 1/4 of the general purpose classrooms in the State contain more than 950 square feet. Five hundred general purpose classrooms contain less than 750 square feet. Clark and Washoe Counties have larger classrooms than other districts in the State. Ninety percent of the general purpose classrooms in Clark County and 79 percent of those in Washoe County contain more than 850 square feet. Conversely, in the other fifteen counties only 54 percent of the general purpose classrooms have more than 850 square feet. Consequently, further consolidation of schools which usually results in larger classes in some rural areas of the State is hampered by the number of adequate general purpose classrooms.

Many of the 411 classrooms that contain less than 850 square feet were constructed prior to the establishment of county school districts; they were designed to handle small enrollments in small schools. In many school districts in the State it would be extremely difficult to initiate programs utilizing team-teaching or accommodating ungraded classes because of building limitations. Most buildings cannot be remodeled because concrete and masonry exterior walls and bearing partitions cannot be removed to accommodate 70-100 students in one general area. Team-teaching and ungraded classes require more square footage than traditional classroom provide.

Facilities to house programs that are occupation oriented are extremely limited in Nevada. Students in small high schools do not have the opportunity to enroll in many vocational programs because of the expense involved in providing special facilities and instructors for limited numbers of students. Only 287 classrooms and laboratories designed or modified for vocational education exist in the state.

Frequently, students in small high schools cannot take more than two or three vocational courses because of classroom limitations. Eighty to ninety additional rooms would be needed to provide proper facilities to allow students in the small high schools (with enrollments of 300 or less) to take a course in each of the major vocational areas.

Several school districts have recently attempted to determine by survey the types of vocational programs needed to train students to find employment in the new industries emerging in the state. Facilities have not been designed nor constructed to house students for programs that are as yet undesigned or finally resolved.

Many existing facilities, particularly in the smaller high schools, are poorly planned. Some lack adequate heat, toilet and handwashing facilities. Implementation of specific vocational programs is difficult.

In 1966-67, vocational-technical enrollments reached 8,045 in grades nine through twelve. If the 287 vocational classrooms and laboratories currently available in the state were ideally located, which they are not, each of the 30,000 students in grade nine through twelve could take only one course each year in subjects related to agriculture, home economics, office occupations, distributive education, health occupations, trade and industrial education, and technical-vocational education because of space limitations.

Most schools have been designed to house students of compulsory school age. Little consideration has been given to the use of school facilities by other segments of the population. Areas of school plants have been specifically designed for the sole use of students in specific age groups, or for special purposes. Students in kindergarten and the primary grades need more space for large muscle activities than older children and adults. Consideration has been given to the heights of drinking fountains, cabinet installations, and toilet facilities. Blackboards and tackboards are designed to be low enough to allow student use. For older students who can remain seated for longer periods of time, less space is provided in general purpose classrooms; however areas for pursuing special interests remain essential. Appropriate furniture and built-in equipment is selected for varying age groups.

Rooms are designed to permit movement of students and to make supervision easier. In the northern sections of the State most schools are designed around the central corridor to expedite interior movement of personnel and students. In warmer areas interior corridors are less common, and the enclosed areas of buildings can be utilized to greater advantage because climatic conditions allow students to pass from place to place out-of-doors.

Schools that have been constructed in recent years are much safer than those built earlier. The Nevada State Planning Board began checking school building plans in 1956. Construction codes have been upgraded continuously, resulting in better practices for constructing public schools. At the present time, the Planning Board requests approval of school construction projects by the Department of Education, the Department of Health, the State Fire Marshall, and the local fire chiefs. When approvals are secured, the Planning Board evaluates the proposed plans, insuring compliance existing building codes. Prior to letting contracts, school districts must secure approval from the State Planning Board for all new school buildings and for additions or alterations to existing buildings totaling more than $5,000.

Procedures for checking construction used by the State are adequate to insure safe schools; however, selection of safe school sites is also essential. The State Department of Education has recommended that the following be given special attention.

A. Accessibility

1. Travel distance--location of school in relationship to residences
2. Travel conditions--sidewalks, slopes
3. Zoning
4. Traffic flow--railroad crossings, freeways, waterways, intersections
5. Transportation routes--exposure to traffic and means of transportation

B. Environment

1. Type of district--land use and zoning
2. Proximity to utilities--water, electricity, and gas
3. Atmospheric conditions--smoke, odor, and dust
4. Noise sources--factories, railroads, highway traffic, fire and police stations, hospitals, and airports
5. Light obstruction--hills, trees, buildings
6. Views

C. Topography and Soil

1. General nature of topography--natural barriers such as mountains, rivers, marshes, etc.
2. Nature of Soil--suitability for construction must be determined
3. Natural Drainage--possibility of seepage and flooding
4. Wind Exposure

The aesthetic qualities of school buildings vary greatly. Some school districts have designed buildings that blend into and enhance the area in which they are located. In other cases, little effort has been made to construct attractive schools even though attractive, well maintained schools influence the educational process. Current school architecture involves very little ornate work. Buildings are utilitarian and simplicity of line is evident.

All school facilities have been designed by Nevada licensed architects and most school districts continue to utilize firms based in Nevada. A trend is emerging to use nationally recognized firms as consultants.

Very few project proposals have considered the use of school facilities by the total community--by handicapped persons, for example--or have made provisions for fallout shelters in school buildings.

Many of the older buildings in the State lack adequate numbers of toilets, handwashing facilities, and drinking fountains. However, newer schools, throughout the State, have adequate sanitary facilities. Septic tanks are still utilized in some locations where sewer systems do not exist.

In some localities, water is either not available in quantity or is too expensive to allow total site development. Water for cooking is still a problem in some remote areas; however, most city schools use adequate municipal water systems.

Schools in northern and southern portions of the State have widely divergent problems of thermal control. Heating and refrigeration systems are expensive to provide and maintain. None of the larger schools outside of Clark County have controlled thermal environments, although recently a small number have been built to allow the installation of airconditioning systems eventually.

Lighting and electrical systems vary. In some schools, it is extremely difficult to operate audiovisual devices because of inadequate wiring and/or light control. Many schools in the State have outmoded lighting systems. Some of the more recent buildings have light problems as a result of poor planning.

In most parts of the State, acoustical treatment consists of acoustical ceiling panels on ceilings. Numerous older buildings have treated ceilings acoustically in remodeling projects. Carpeting is used increasingly, particularly in the larger counties.

Some school districts in Nevada have had to reject bids for school construction projects because the low bids exceeded the funds available for construction. The cost of school construction is increasing at a rapid rate on the national level. In many instances, Nevada school districts have had to eliminate items from proposed construction projects because construction costs are rising at least three percent annually. School bonds passed in 1968-69, for example, will buy approximately six to ten percent less by the time the buildings can be planned and bids are received. Generally, school boards and administrators have been reluctant to initiate school construction projects. Sound economic principles have been followed; however, each year less can be secured for the construction dollar.

Many cinderblock schools have been built in Nevada in recent years. In most cases, new schools contain only that equipment and those furnishings that are essential.

## SCHOOL FACILITIES

### Emerging Mandates

I. **SCHOOL DISTRICTS SHOULD UTILIZE THE SERVICES OF THE SMALL SCHOOLS FACILITY LABORATORY AT THE UNIVERSITY OF NEVADA AND OTHER AGENCIES AND GROUPS WHO EMPLOY EDUCATIONAL CONSULTANTS TO DEVELOP EDUCATIONAL SPECIFICATIONS WHICH INDICATE THE TYPE OF FACILITIES NECESSARY TO IMPLEMENT PROPOSED PROGRAMS.**

The educational specifications are utilized by the architect as a "recipe" for the building design.

II. **PROFESSIONAL EDUCATORS MUST BE GIVEN TIME TO DEVOTE TO PROGRAM ANALYSIS, PROGRAM DEVELOPMENT, AND PROGRAM WRITING.**

Proposed educational programs should be reviewed by school district boards. Once a program has been accepted, implications for building should be approved.

III. **SCHOOL BOARDS AND ADMINISTRATORS MUST RECOGNIZE THAT SCHOOL BUILDING NEEDS WILL OCCUR AT REGULAR INTERVALS AND PLAN ACCORDINGLY.**

Ongoing programs of site acquisition, remodeling, renovation, and construction should be initiated in all districts of the State. Double sessions, overcrowding, and antiquated school buildings usually indicate a lack of long-range planning. Emergency building projects result in poor design, poor construction, and poor programs.

IV. **PROFESSIONAL EDUCATORS, PARTICULARLY THOSE TEACHERS WHO MUST WORK IN AN SPECIFIC INSTRUCTIONAL SPACE, MUST BE INVOLVED IN THE PLANNING OF THAT SPACE.**

Educators should plan programs and indicate the types of materials and space they need to expedite the learning processes rather than suggest changes in architectural design. They must indicate the types of activities that will be conducted in their classrooms and the amount of space required to conduct those activities.

V. **SCHOOL DISTRICTS MUST RECOGNIZE THE INCREASED PROBLEMS IN SITE ACQUISITION.**

Large, well located blocks of land have increased in price and will continue to increase in value. Undeveloped land is the one commodity that "we do not make anymore." Districts must explore the possibility of utilizing open areas that are owned by cities and counties for school purposes. Concentrated efforts must be made to develop properties in cooperation with all other community service agencies. Through cooperative agreements, large tracts that supply many services for the community and the schools can be developed without duplication of effort.

VI. **NEVADA MUST RECOGNIZE THE IMPACT OF NEW TEACHING TECHNIQUES, NEW MEDIA, AND TECHNICAL ADVANCES IN SCHOOL PLANT PLANNING.**

Numerous innovations in teaching techniques such as team-teaching, ungraded schools, the use of paraprofessionals, and technical advances in the field of communications and electronics have had great impact on building design. In addition, packaged materials and prefabricated buildings and building components are being merchandised and utilized at a rapidly accelerated rate. Some materials utilized in construction in the past are no longer available at nominal cost. As the population becomes more mobile and types of construction becomes more flexible, school design must change. New housing developments, occupied by young families, become the centers of populations of high school age students in 10-15 years.

**VII. FACILITIES THAT ARE DESIGNED FOR SPECIFIC AGE GROUPS OR FOR PARTICULAR PURPOSES MUST BE FLEXIBLE ENOUGH TO ACCOMMODATE OTHER GROUPS AND VARYING ACTIVITIES DURING THE TIME THE SCHOOL IS NOT IN SESSION.**

As education programs evolve to include larger segments of the population and leisure time becomes greater, school facilities must be used increasingly. Thus, space must be planned so as to be readily accommodated to programs that are in the developmental stages and appropriate for different age groups. Many manufacturers are now marketing flexible furnishings and building components. As new materials are developed, they influence school construction. Future school construction projects will need to meet community needs more fully than those that have been built or that are currently planned.

**VIII. PERIODIC REVIEWS OF THE PROCEDURES USED TO CHECK SCHOOL PLANT PLANS AND SPECIFICATIONS ARE NECESSARY BECAUSE NEW MATERIALS BECOME AVAILABLE AND CONSTRUCTION PRACTICES CHANGE RAPIDLY.**

Opening interior spaces sometimes creates fire hazards. Because large open areas have not been utilized extensively in school buildings, experts should be consulted to insure safe buildings as suitable new school sites decrease demands for remodeling and rebuilding on smaller existing increase. The problems of pollution and traffic that arise as population increases affect the location of schools. Because an increasing percentage of the population will utilize schools, buildings should be attractive. People are not attracted to a poorly designed, uncomfortable, or inhospitable structure. The building as well as the program it houses must attract people to be "community-centered." Those responsible for school construction must study the feasibility of incorporating fallout shelters in new projects.

**IX. SCHOOLS MUST BE DESIGNED FOR GREATER USE BY THE COMMUNITY AND FOR MORE MONTHS OF THE YEAR.**

More toilets and handwashing facilities to serve the adult citizens in a community-centered school will become necessary. As schools become used for twelve months, an ample water supply will be needed for culinary and irrigation purposes. Larger mains than those commonly utilized in today's construction will be required to insure adequate volume and pressure at peak-use periods. In all areas of the State, provisions must be made to provide a thermal environment conducive to learning in all seasons. Some schools could not be used successfully during the summer months as they are now.

### X. PROVISION MUST BE MADE TO INSURE ADEQUATE, EASILY MAINTAINED LIGHTING FOR A VARIETY OF EDUCATIONAL ACTIVITIES.

Increased use of electrically driven equipment will be required. The numbers and variety of self-teaching machines is increasing at a rapid rate. Adequate lighting and the control of light presents a unique problem in construction suitable for flexible, modular construction.

### XI. CARPETING SHOULD BE INCREASINGLY USED AS FLOOR COVERING.

Resilient floor coverings minimize noise such as that from the shuffling of feet and the moving of tables and chairs. Carpeted rooms demonstrate a significant relationship between fewer distractions and learning.

### XII. BUILDINGS MUST PROMOTE, RATHER THAN DETER, CHANGES IN EDUCATIONAL PROGRAMS.

The buildings commonly being built and utilized in Nevada do not encourage individualized instruction, team-teaching, ungrading, or modular scheduling. Flexible schools, that are equipped to focus on the individual student, are expensive. New buildings must be constructed, or old buildings must be renovated and remodeled, to implement desirable program changes. If schools are to be utilized as community centers and for school programs throughout the year, consideration must be given to the following: (1) Larger and more fully developed sites to accommodate a wider range of activities and to serve the community as facilities shared with students of compulsory school age. (2) Thermal environment controlled to permit use during the summer months. (3) Flexible interior partitioning to accommodate added activities. (4) Materials designed to withstand increased use by larger numbers of people.

# SCHOOL FACILITIES

## Recommended Exemplars

### MODEL

OBJECTIVES: School districts planning facilities will

1. Insure that school facilities evolve from educational programs and not dictate programs.
2. Encourage long-range planning for developing and using school facilities.
3. Insure that persons responsible for implementing educational programs are appropriately involved in planning instructional space.
4. Provide adequate school sites in terms of size, safety, and program.
5. Provide facilities large enough and flexible enough to implement new educational programs.
6. Provide schools that can be utilized by the total population in a variety of ways.
7. Provide safe buildings that are pleasant to look at and convenient to use.
8. Provide comfortable schools with adequate sanitary facilities, thermal environment, lighting, and acoustics.
9. Economize in plant construction without sacrificing educational programs.

IMPLEMENTATION: The following steps, procedures, processes will result in implementation of all or a significant part of the objectives noted above:

1. Professional educators will be given time to devote to program analysis, development, and program writing. Proposed educational programs will be reviewed by school district boards. Once a program has been accepted implications for a building will result.
2. Planning building projects will be a continuous process involving district boards and administration. A minimum period of five years is necessary to plan adequately a building. Population trends and financial patterns will be analyzed, funds will be provided, sites will be acquired, and programs developed and evaluated well in advance.

   The district board and administration will be continually aware of zoning regulations, industrial and residential development, highway projects, and numerous other factors that will influence site acquisition, remodeling, and new construction.

   The district board and administration will also be aware of changes in society which will affect the buildings they will ultimately be responsible for constructing.

District school boards and educators will rely upon people of the community in planning buildings. Businessmen, city and regional planners, government officials, parents, and students must be consulted and their ideas solicited at various stages in the planning process.

3. Representatives of the school staff will be made members of the school plant planning team in each school district. Their program development, implementation of programs, and evaluation should become a part of district policy. School boards will recognize the important responsibilities of the teacher and administrator and require that the professional staff prepare and maintain a well defined, current, written, educational program consistent with school district philosophy and objectives.

   If programs are well defined, it becomes a relatively simple matter to develop the educational specifications that contain essential information and design implications for the project.

   If the educational specifications are incomplete, the architect must conduct research about the district or make assumptions about design that may or may not result in a usable structure.

4. Approximately 1,033 acres of school sites remain undeveloped in Nevada. If that property could be improved, many well located multiple-use parks could be made for the students and citizens of Nevada.

   School districts, counties, cities, and the State will thoroughly explore the possibilities of acquiring tracts of land that may ultimately be utilized as multiple-use areas for construction of recreational purposes or both.

   School districts will develop long-range plans for site acquisition and improvement prior to periods of rapid development and while land values remain relatively low.

   Each proposed school site will be carefully analyzed as to size and location. The recommendations of the Department of Education and the Counsel of Educational Facility Planners will be utilized as general guides; however, each individual site will be evaluated in relationship to the educational program proposed.

5. Flexibility in school construction is essential. The school buildings of the future will be: (1) Expandable--easy to add to; (2) Expendable--easy to dispose of by conversion into other use or sale; (3) Adaptable--to meet future program needs with little effort, at nominal cost, in a short period of time; (4) Comfortable--to meet the needs of the total population for the entire year.

   The size of individual classrooms is no longer a significant criterion in school design. School planners will think in terms of the number of square feet required to conduct specific activities and the types of material and equipment that will be needed.

   Schools need not look like the traditional school, but must be constructed to implement ever-changing educational programs.

6. School buildings will become community-centered buildings that are open to the general public to be utilized as meeting places and resource centers.

School planners will design facilities which can be utilized by school children during the day and serve as community center at other times. In turn, those responsible for community buildings such as libraries, convention centers, auditoriums, golf courses, and parks must devote considerable effort to make those facilities useful to the schools.

If necessary, additional persons will be employed to supervise and assist the general public in the utilization of the facilities. Most certainly expenditures for heating, lighting, and maintenance must be determined and paid for equitably. It is not feasible to operate a large facility if it is utilized by a limited number of persons. However, school districts by cooperating with other public agencies can find equitable solutions.

If several types of facilities, constructed and funded by several agencies, could be built on a common site and utilized by the entire population, the people of a relatively small community could afford the variety of facilities they need and desire.

Flexibility in construction is essential. Schools must be designed to function for adult education classes also. The same building might serve as a county warehouse or as an administrative office building in a few years. Interior relocatable partitioning should be kept to minimum and added to perform specific functions as educational programs change.

7. In their attempts to open space for greater program flexibility, architects and school planners will consider safety and insure that safety measures are not overlooked.

Those persons who check plans will carefully review the materials to be utilized to insure that newly developed materials meet code requirements.

Required acreage for school sites will be flexible enough to allow multiple story construction on a relatively small site but encourage the acquisition of large tracts for community center schools.

Schools must be located for those they serve. As persons have increased amounts of leisure time, they will require recreational and educational opportunities within easy reach.

Educational parks, that enroll very large numbers of students at all grade levels, are being developed in several cities. Urban renewal projects often include school sites. High-rise schools, conversions of industrial plants for school purposes and "no-school schools" are increasing.

8. Controlled thermal environment will be utilized wherever practical. In all new construction, electrical supplies and distribution methods will provide for expanded consumption. In addition, efforts will be made to rewire many older schools to provide safe, adequate electrical power and lighting installations. Water supplies will be adequate for all culinary and irrigation purposes at the peak season.

9. More schools may be constructed that make use of prefabricated materials.

   Building materials, cabinets, storage units, walls, etc., are available on a package basis. Many of these items will be incorporated in building designs to accomplish the desirable degree of flexibility.

   As the cost of on-site labor increases at a rapid pace, schools will need to utilize prepackage materials to a greater degree.

   To counteract the rapid increases in construction costs effectively, school districts must enter into agreements with other agencies to construct centers that will serve both school and community purposes.

## Model II: Foreseeable Changes in School Design

Caudill Rowlett Scott

Architects Planners Engineers

Houston, Texas

### Introduction

Since the turn of the century the world society has been subject to change that is extraordinary in the annals of time, and with each decade the rate of change has accelerated and will continue to do so. In education changes have responded to the changes in all other areas of society, but the accumulation of knowledge is occurring at a much faster rate than ever before, and it is no longer possible for any one individual to be universally educated. Some people view changes in education as very small in comparison with other areas of society. However, others view with concern the swiftness and magnitude of the changes that are being made.

American education today means many different things to many different people. For some it is a period of excitement, while for others, it is a period of disenchantment with the past and pessimism regarding the future.

To some, education is becoming associated with social, cultural, and physical national survival. The school is the most logical institution in which democracy has the best chance of becoming conscious of itself. The problem is the one of developing the kind of institution that combines the degree of individual freedom which is necessary for progress, with the degree of social cohesion that is necessary for survival. People have now become alert to the role education must play in today's society.

Through more efficient instructional processes, more education is being brought to more people in wider range and in greater depth. This is being done through improved utilization of facilities and human talent also; schools are educating for the understanding of principles rather than facts in order to develop a thinking population who will spend the rest of their lives learning.

In the past education was a local matter, but in recent years we in America have become known as a mobile society. Not only do people move from state to state, and coast to coast, but from cities to suburbs, and from rural areas to cities. This creates not only sudden pressures and crises at the local level, but inequities in educational opportunities for the individual.

The population explosion, which has occurred since the end of World War II, together with the increased interest in education at all levels, has also been a factor in the pressures experienced in many localities. The construction of school buildings has not kept pace with the demands for additional space, not to mention keeping up with the need for replacement of obsolete facilities.

As a result of all these facts and considerations, much attention has been directed toward the improvement of educational media and methods for the express purpose of increasing the EFFICIENCY and EFFECTIVENESS of learning.

## Learning Media Defined

Learning media may be defined as devices of varying sophistication which are utilized for organizing, presenting and storing information, and for encouraging appropriate learning responses. Media are systems of communication, or aids, in the communication process. In the broadest sense, media include the teacher, the book, the chalkboard, recordings, television, motion pictures and slides. This seems to indicate two classifications, conventional media and new learning media. The purpose of using media in education has been and is currently being used to increase the desired efficiency and effectiveness of learning.

The rapid expansion and development of learning media has been a phenomenon of this century, and World War II can be identified as the major impetus. During the war, films, filmstrips, slides, and records were perfected for helping train the required civilian and military personnel. To these were added the opaque and overhead projector, and further refinements in film projectors have been made since the war ended. Added impetus was evidenced as a result of the launching of "Sputnik."

During the decade of the 50's we experienced the introduction and development of television for education and in recent years we have seen the growing use of programmed instruction and electronic-based information and data processing systems.

The result of the concerns for improving education has been an explosion of innovations in education and development of new media and new methods as well.

The use of learning media in the educational process has always had an effect on the design of school buildings. For example, the introduction of chalkboards into a classroom required appropriate viewing conditions and lighting. Planning of school buildings has often been done carelessly and often not consciously; and the results, therefore, were many inferior classrooms. The introduction of the use of slides and films required that a screen be placed in the rooms and that natural light be controlled by drapes or blinds.

Educators must plan for the use of media, and educators and architects together, through the planning process, must specify appropriate facilities for effective use of media.

To understand the natures of today's and tomorrow's school facilities which require appropriate utilization of media suggests that we explore contemporary educational climate, its problems and directions and the responses being made in the form of innovations in educational techniques, organization, and methods of learning. Such a review will spell out their current role of innovative media and methods and will identify their implications for facilities and educational programming.

## Programming

When educational objectives are defined and methods and media established, it is the process of architectural programming that set out the content and character of the school building. This program should give the architect all basic necessary information about the building to be designed. It should include:

> A clear statement of the institution's educational philosophy and the significance of the proposed building in the light of these goals and objectives.
>
> A description of the functions that will be going on in the building, the kinds of facilities needed, and their relationships to each other.

The development of the program is a vital task, but too often it is incompletely considered or entirely overlooked. A truly successful educational plant can result only from detailed and complete programming. It is the information upon which the architect begins his work. It is the educator's prerogative to say what to teach, how to teach and what media will be used. It then is the architect's responsibility to provide the proper learning environment--an environment responsive to students' and teachers' needs and the many different tasks they perform.

Each student should have a place in school to call his own, a place to study, to keep his possessions and to receive resources. Teachers must have spaces where they can confer, discuss and plan, both privately and in groups; and they must have access to learning resources.

Sometimes the building program is not a single document, but is composed of two separate entitites--the educational specifications and the architectural program. The educational specifications will contain the educational philosophy, purpose and functions, while the architectural program will be definitive statements of space types and design features.

The architects who are charged with the responsibility of designing and planning school buildings must be concerned with and understand the basic philosophies, aims, and objectives of the learning process. They must be able to understand educators and to communicate with them.

"Unless some as-yet-unknown way is found to stop or drastically slow down the march of technology, it will be literally impossible for the schools of 2000 A.D. to resemble those of today." So said Mr. Goerge Leonard, Senior Editor and West Coast Editorial Manager of Look Magazine, in an opening address to Planning for Education in Litchfield Park in 2000 A.D., a seminar. So have many prominent individuals spoken of the irresistible march of technological progress which foretells of promise of the future. However, for each of these prophets of mechanical salvation, there are purveyors of doubt and caution. The age-old pendulum swing of our society leads us down the sacred middle-road through fear of the unknown or of failure.

We have seen in this decade a virtual revolution from the static education that was yesterday. Let's examine briefly where we have been and take on accounting of where we are and what the future might bring. Recent change in emphasis by educators from education for all to primary concern for education of the individual have brought about individualized, continuous-progress educational programs. Architecturally response has been to open up the plan to allow flow and movement uninhibited by doors and partitions; inherent noise distractions are softened by acoustical treatment in ceilings and floors. This approach has led to deep loft type planning (composed of multiple structural bays in width and breadth) allowing flexibility for future change. But instruction to the architect to provide flexibility will not in itself be the panacea to solve the educators' dilemma.

We must refine our definitions of flexibility and its implications upon the facility. Flexibility may be thought of as embodying three distinct concepts. One, the concept of expansibility, the capability of physical additions or external growth. Two, the concept of multi-use of space, or design of space to accommodate at different times a variety of compatible uses. Three, the concept of convertibility or the capability of conversion of space definition through changes internally of the partitions. These partition changes may be accomplished in degrees such as instant (folding walls or partitions), overnight or weekend (demountable or disposable nonload bearing), or summertime (involving utilities and/or fixed more substantial partitions, nonload bearing).

The implications on cost must be evident--flexibility costs money.

The life safety codes written around the turn of the century must further be explored in light of new methods of construction and new demands on instruction.

Along with opening up the plan a new dimension has been introduced into the facility planning--that of time, for the educators are designing courses of instruction based on variable, flexible or modular time schedules allowing a wide variety of time increments to accommodate varying demands of course content. This allows a tightening up or higher utilization of facilities but not necessarily a reduction in total space, for the new movement in schools demands a freedom of space, and new programs are being added to give depth and enrichment to education which, in turn, need space.

Along with flexibility of time there may also need to be a flexibility of space increments for a wide variety of activity and group size. There should be space for large group instruction, small group or seminar instruction, and individual study and counsel. There should be directional and casual spaces, formal and informal, active and quiet, open and intimate, to respond properly to the needs of this new education.

In the interest of the taxpayers' capital and operating investment in the schools, more and more schools will become full-time, year-around extended school day--eight in the morning till ten at night, tri-semester. This means quite simply that schools will wear out sooner unless their quality is raised, for they will have many times the use. They must be airconditioned for year-around comfort, and provisions must be made for an ever-expanding community use of school facilities.

Schools are becoming more and more a part of their community; and as the school day, week, and year become longer and as the school assumes new roles in retraining, broadening, and continuing education, school and community form a closer relationship.

A new kind of intermix between education and society is long overdue. The individual and society interact and the quality and significance of one is dependent upon the other. To solve the problem is to provide a facility made to serve people; people change their ideas, change their concept of education, so the facility must accept change dictated by people of all ages. As one prominent educator, Dr. John Terrill, asks, "When are we going to stop playing house in school and become involved in the activities of real life?"

## Exemplary Schools

Under the Dome--P.S. 219 in New York City--the first open plan school in this largest city is a experimental satellite nongraded facility, housing kindergarten through grade two.

Within this wall-less, airconditioned, 7,850 square foot, circular space, 150 children are taught in varying sized groups of various ages, separated only by visual space, with dividers of movable cabinetry or teaching surface. The ungraded primary groups pursue a variety of activities at one time. Movement, activity, mobility are the key words. Movement is largely continual by individuals or small groups as opposed to the more traditional school's large surges of movement. Activity is varied, accompanied by an audible hum softened by acoustical floor material. Mobility must be considered in furnishing a space such as this in order to allow, even promote, freedom of movement and expression among those teachers who are fortunate enough to be part of this exploratory technique.

A circular learning arena under a library mezzanine is set off center within the space to accommodate more active or noisy events, such as exercising to music or for audiovisual presentations. It may be closed off visually and acoustically with a folding door or lead curtains.

The library mezzanine above and the circular stairs leading to it are carpeted; individual study and story telling take place there.

Surrounding the central space are rooms for teachers to plan, observation, a rear screen projector of television and film and remedial rooms, as well as toilets and doors to play patios.

If the building has impact on the visitor, so is the performance of the children impressive. They happily go about their tasks quite unconcerned about visitors circling the area--so unlike the reaction in conventional classrooms.

Anniston Educational Park--now in the first phase of construction in Anniston, Alabama--is designed according to four strong premises. One, that learning takes place individually; therefore, curriculum and methodology should be organized around the individual. The quest to individualize learning is the most important innovating force in this educational system. Two, that students must come into contact with different levels of learning and have the opportunity to work together to discover the relationships of various disciplines as aspects of one world. Three, that there are no time limits or space limits on when or where a student can learn. In fact, there are no age limits. Four, that the educational program must be dynamic to survive and contribute to the community.

The facility is being constructed around a first-phase core building to house the upper school, nongraded nine through twelve. There are no conventional classrooms but many seminar spaces for eight to ten persons, large group spaces for dissemination of material and testing, and largely individual study stations. There are offices for professional staff and space for paraprofessionals, who will relieve the master teachers from the housekeeping chores of the past. Roles will change; in this learning environment, the teacher will be a director of learning, and the principal will be the director of curriculum.

Ultimately, the site will contain many components organized around peer groupings, an early school (three and four year olds), a lower school (K-4), a middle school (five through eight), and a varsity (13-14) in addition to systems central to support this park and link the total district together.

## The Community College

The community college is as American as apple pie. It came out of the Mid West at the turn of this century and is now offering the lives of our people in every section of the country. More and more it is becoming one of the most important elements of our educational structure. This generation depends upon it as much as the last generation depended upon the high school. It can mean some college education for almost everybody, not only for youngsters just out of high school. The community college belongs to everybody in the community.

Dr. Edmund Gleazer, executive director of the American Association of Junior Colleges, has said that we can expect about 500 new community colleges in the next ten years. Administrators in increasing numbers are asking for guidance in the development of new plans.

The community college is the new energy of education. Inevitably, new forms will emerge. There will have to be community colleges of all sizes and shapes. The mystery is that these forms are so slow in coming. We wonder why. We suspect that familiarity with and sentimentality for old educational forms are delaying us. Community colleges, educationally and architecturally, are too often blown-up high schools or watered-down universities. To develop logical new forms, we shall have to discover the uniqueness of the community college. When we do, we can then make America's greatest potential learning machine take a truly functional shape without the imposed limitations of borrowed form.

The community college will serve a diversified student body which includes the following: University-bound students, industry-bound students, brilliant, young, but immature students not quite ready for the state university, young, mature, but academically slow starting students, the adult technician who needs more training, the paraprofessional, the university graduate who needs still more education, the oldster who has a young mind, and so on. Consider, too, the disadvantaged, inner-city students from impoverished families. Superimpose on this diversity the fact that some of the students will be on a work-study schedule, and the picture becomes even more complex. The ten percent student who works most of the time is a hard one to cope with.

The most comprehensive of comprehensive high schools do not have this great spread. Our students are poles apart. Our problem--to unify a diversified student body--unquestionably will be difficult to solve, but when we find the answer we will find a distinguishable educational-architectural form that expresses the community college's uniqueness.

The "shape of things to come" in Nevada will depend to a large degree on the attitudes of those on the state and local levels responsible for development of new educational facilities. In a number of our community college projects around the country, we see total conventionality to the most advanced and creative in the instructional approach. Those institutions which offer the greatest challenge and opportunities for unique concepts are those which demonstrate the greatest awareness that there may be better ways to learn than those to which have become accustomed.

Two current projects are the leaders in innovative instructional approaches:

1. Oakland Community College in Bloomfield Hills, Michigan, with its total audio-tutorial methodology--"the learner centered approach," and

2. Pima Community College in Tucson, Arizona, where the instructional strategy is based on learning teams of eight students, each with peer group interaction as the basic principle.

Both of these advancements will undoubtedly have much influence on education in the years to come. Everyone can't be innovative; but everyone can make himself aware of significant current developments and set a course which best answers his own situation.

Some additional thoughts to be noted:

1. New developments in audiovisual techniques and their effect on instructional methodology.

2. The need for faculty in-service training to orient them to new instructional approaches and basic philosophies in the institution.

3. The need for consultants, sociologists, behavioral scientists, educational consultants, etc., to be a part of the planning team.

4. Special studies for solutions to the social and ethnic problems of communities and how these might relate to the function of a community college.

5. The need for further emphasis on community service aspects of community colleges.

6. Considerations for the unique requirements of commuter students and the diversified student body.

7. Demands for greater space utilization generated by tighter budgets.

8. The establishment of educational nodes fed by a parent institution to offer a more convenient service to more people.

These kinds of stimuli offer the greatest opportunities for the architect to respond innovatively in all phases of development: (1) In establishing space needs and organizing them into functional elements; (2) In arriving at component systems for the buildings; and (3) Deriving an architecture expressive of the well defined uniqueness of the institution. "All that can ever happen in the near or even quite remote future is already here now happening, completely invisible . . . . .

"The present is always invisible. We only see the past--the immediate past."

Marshall McLuhan
John Rowlett
Don Wines
James M. Hughes

## SCHOOL SERVICES

### Introduction

This section is devoted to the treatment of those activities that are a necessary adjunct to the operation of any school system, but do not logically fit into any of the previous sections. Many of these services can and should be an integral part of the school program, and contribute directly or incidentally to the efficiency of the instructional process.

In addition, this section also provides a treatment of some of the more prominent instructional procedures that have been advanced in recent years. They are provided as models or exemplars for those schools or districts that may wish to develop a different approach to the instructional process.

Included also are several papers relating to teacher education and procurement. These provide information that will be helpful to all of those who desire an increased awareness of the need for in-service training, procurement and recruitment of teachers, and utilization of teacher aides.

## THE YEAR-ROUND SCHOOL

### Introduction

As public education becomes more and more complex and as the annual expenditure for public education continues to increase, concern grows for ways of effecting greater efficiency and economy in educational programs without sacrificing quality. One of the methods often advanced is that of offering education the year round. Such year-round school plans have taken many forms throughout the United States. Yet non that can be considered a real year-round school operation has been adopted as a permanent plan. Such a plan has probably not been adopted for one or a combination of reasons:

1. The roots of tradition for the nine- or ten-month school are deep.
2. The increased costs that normally accompany a year-round school are great.
3. The difficulty in administration and operation often outweighs the benefits.

To describe for Nevada or Nevada school districts a plan that has some chance to be successful would be extremely difficult at this point. However, a number of methods will be described and recommendations for alternative plans will be included.

## THE YEAR-ROUND SCHOOL

### Present Practices

In all but the smallest school districts in Nevada, school programs operate during periods other than the normal September to June school year. The programs are more extensive, of course, in the larger districts. In the smaller districts such a program may consist of a single class for a limited period of time during the summer months.

In Washoe County, a comprehensive summer program is offered to pupils of all ages on a voluntary basis, and in most cases on a tuition basis. A regular summer school director is employed, and a number of teachers are offered employment for the period classes meet, usually six weeks. Classes offered on the elementary level usually consist of remedial reading, Nevada history, and courses in social science and mathematics. Similar courses are offered on secondary level to allow students to make up credits lost during winter semesters; a few courses are designed for enrichment. In addition to these regular programs, certain federally funded programs primarily for disadvantaged children are carried on during six or eight weeks during the summer.

Clark County offers a similar program for elementary and secondary students. The program in Clark County School District has become more extensive each year.

Ormsby County also conducts a more limited program designed primarily for remedial purposes on the secondary level.

In the counties mentioned above as well as in many other counties of similar size and smaller, certain vocational and technical classes are conducted primarily on an evening school basis or in extended day-school programs. These are sometimes limited to high school age pupils, but in many cases they do include adults.

At present, no regularly organized session of school is conducted by any school district in Nevada that either extends or substitutes for the regular nine-month school program. There has been little effort towards increasing the school year in any manner other than that mentioned above. Since 1956, a requirement that the minimum school year be 180 days has existed; although teachers' contracts have been extended to include up to 200 days of service, the number of days when the children are in school has not been increased, because of the limitation of per pupil dollar apportionments provided by the current finance formula.

# THE YEAR-ROUND SCHOOL

## An Overview

A number of factors should be considered in weighing the advisability of positive change in the structure and organization of the school calendar for public education. Among these factors are the following:

1. The accommodation of increasing numbers of pupils in our school buildings without adding greatly to our capital outlay expenditures for buildings.

2. The accommodation of an increased number of grades in our schools or an increased age span in our schools. Kindergarten is almost universal in Nevada in all school districts. Early childhood education programs beginning at age three or four are being considered. More and more concern is being expressed for the development of programs of continuing education for grades 13 and 14 in our public school system. To accommodate these three grades alone would require an approximate 25 percent increase in our school facilities.

3. The demand for increased utilization of the teaching staff and the increase in salaries that can only be met by a full-year program of employment.

4. The demand for a greater utilization of school facilities for the total year for instructional purposes.

The above factors cause us to scrutinize very carefully the possibilities of increasing the utilization of school facilities and of teaching and administrative staff. A program might be developed to increase the length of the present school year or to include a summer quarter that rotates the attendance of children. Such a program would have to be very carefully organized, developed to the last detail, and widely publicized, if it were to be acceptable. Even then, there are major hurdles to be overcome, and there are decisions that must be made before such a plan is devised. These decisions relate to the purpose for which the year-round school is designed. There are two major alternatives to consider. If the major purpose is to increase the use of facilities and teaching staff without increasing the number of days of school for children, then we are concerned with one set of factors. If, however, the purpose is to shorten the number of years necessary for a child to complete what is considered the normal eight or twelve grades, we have yet another set of factors to consider.

If our purpose is the first one stated above, some believe certain economies can be effected. In a plan that provides for schools to be in session most of the year, with a quarter or a third of the pupils on vacation during one of the periods each year, we note that:

1. Teaching staff and facilities are required for only three-fourths or two-thirds of the total pupils.

2. Each group of students completes the school year at a different time, necessitating a multiple number of promotion or graduation ceremonies each year.

3. Administrative, supervisory, and non-teaching personnel (counselors, librarians, etc.) must be employed and on the job the total year.

4. Utilities and current maintenance and operations expenses are increased in proportion to the increased operating period each year.

5. Administrative procedures concerning attendance identification, curriculum articulation, and program procedures become more complex.

In the above plan, there appears to be increased costs in certain items and economies in others.

1. Higher salaried staff must be retained requiring increased expenditures up to 25 percent.

2. Utilities and operating costs will be increased 20 to 25 percent dependin upon need for air conditioning, staff for maintenance, etc.

3. Teaching staff will be reduced until enrollment increases catches up to the reduced percentage of students in school. (A five percent increase annually would result in savings for four or five years, but will be reduced by 5 percent each year.)

4. A reprieve of capital outlay expenditures for new facilities would be realized for the same period.

If, however, the second objective--that of shortening the number of school years for the child--is of primary concern, additional factors should be added to those listed above:

1. The total teaching staff, or a large proportion of it, would be employed on a year-round basis.

2. Any plan that includes acceleration or broadening of the school program involves greater use of facilities for a longer period, and negates the savings in facility use.

3. Overall expenditures for education would probably be increased in direct proportion to the increase in length of the school year.

The plan that is most likely to achieve success will probably include some of the elements of each of the objectives mentioned above. If such a plan is devised, we have responded to the factors involved in the mandates listed earlier.

# THE YEAR-ROUND SCHOOL

## Emerging Mandates

**I. THE CONCEPT OF THE YEAR-ROUND SCHOOL MUST BE STUDIED AND WEIGHED BEFORE PROGRAMS ARE INSTITUTED.**

The factors involved in the year-round school are complex, and the results of current studies and pilots are frequently contradictory. No urgent mandate to adopt this particular pattern can be projected at this time.

**II. ALTERNATE STRATEGIES FOR USING FACILITIES MUST BE EXPLORED.**

The general statements and considerations presented in the preceeding "Overview" section provide a basis for the structuring of such alternate strategies. Present summer school use, expanded adult programs, or community operated supplementary programs may present at least partial solutions to the problem.

# THE YEAR-ROUND SCHOOL

## Recommended Exemplars

In order to suggest exemplars that may have some chance of success in Nevada school districts, it is necessary to present a number of plans that have been tried elsewhere, as well as to include the best elements of the plans presently operating in Nevada as "summer sessions." To this end, a brief description of the major types of year-round school plans most commonly suggested is included.

The chart shown in the appendix, along with a brief explanation of the various plans, will serve to provide a base for the recommendations included below. It is hoped that these recommendations may serve as guidelines for any school district desiring to develop a new school program that extends beyond the current ten-month program.

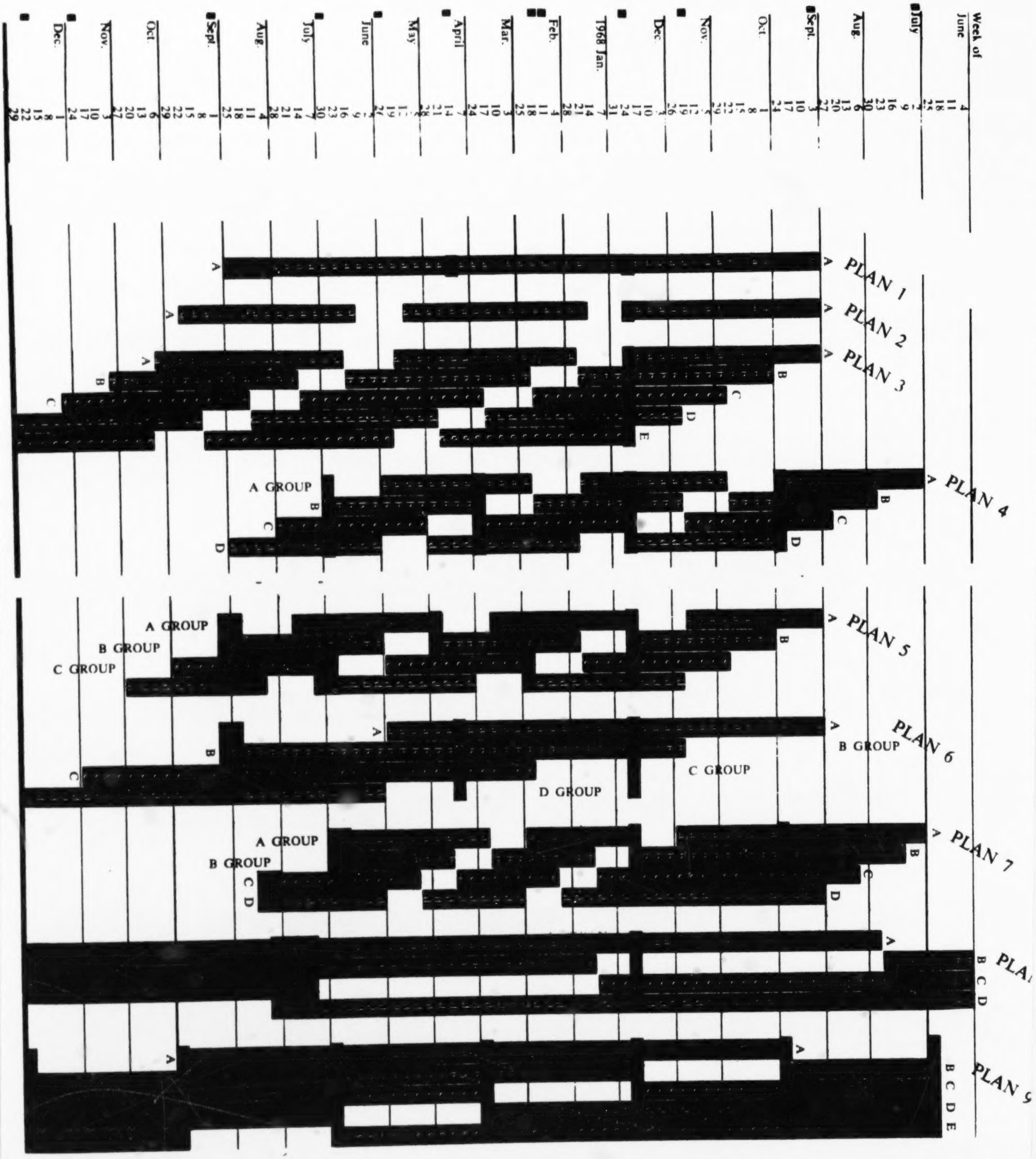
1. Any program that is developed should provide for instruction of pupils for no less than 200 days per year.

2. Contracts for teachers should provide for at least 210 days of service for regular teachers with extended time for supervisory and administrative staff.

3. Any plan that provides for varying vacation periods for groups of children should be instituted for elementary schools only. (This recommendation stems from the fact that most secondary programs have highly desirable and necessary instructional and extra-curricular programs that revolve around certain periods of the year; these would be omitted from a program on a rotating basis.

4. Of the plans devised for an instructional program that extends to more than 200 days of instruction per year, there should be a provision for (1) broadening the curriculum; (2) moving through the normal grade pattern at a more rapid rate.

5. A thorough study should be made of the possibilities inherent in a formalized six- or eight-week summer session that would enroll up to fifty percent of the pupil population in either remedial or enrichment programs. Such a program would utilize the services of at least sixty percent of the total staff for that period. It would also provide for the utilization of most of the buildings in any particular district and still provide time for maintenance and major refurbishing during the "off" periods. Teachers employed for this program could be retained on a rotating basis from year to year which would allow those desiring or requiring summer training to take advantage of it.


Week of
June 4 11 18 25
July 2 9 16 23 30
Aug. 6 13 20 27
Sept. 3 10 17 24
Oct. 1 8 15 22 29
Nov. 5 12 19 26
Dec. 3 10 17 24 31
1968 Jan. 7 14 21 28
Feb. 4 11 18 25
Mar. 3 10 17 24
April 7 14 21 28
May 5 12 19 26
June 2 9 16 23 30
July 7 14 21 28
Aug. 4 11 18 25
Sept. 1 8 15 22 29
Oct. 6 13 20 27
Nov. 3 10 17 24
Dec. 1 8 15 22 29
PLAN 1
A
PLAN 2
A
PLAN 3
A
B
C
D
E
PLAN 4
A GROUP
B
C
D
PLAN 5
A GROUP
B GROUP
C GROUP
B
PLAN 6
A
B
C
B GROUP
C GROUP
D GROUP
PLAN 7
A GROUP
B GROUP
B
C
D
PLA
A
B C D
PLAN 9
A
B C D E

Here, compiled by Mary Liebman of McHenry, Illinois, are nine of the most often mentioned year-round school calendars. Mrs. Liebman, a well-known writer on the subject, charted them for Journal readers to apply to the last half of 1967 and the whole of 1968. Black dots in the left hand column indicate weeks with legal holidays. Heavy black areas across the chart indicate weeks when school would be closed. Each letter represents one week of student attendance. (Plan 9 at far right is the Andrew Adams "sliding plan" discussed in the accompanying article and charted separately in Figure 1, page 12). No proposals that extend the school year with optional programs are shown. All calendars illustrated require various forms of statutory extension of the year, work given for credit, and state aid paid for pupils in attendance. Economies result, as both Dr. Andrews and Mrs. Liebman point out, from plans that reduce the number of students in school by acceleration, sequential enrollment or both. Distribution of school-closed weeks (except for Christmas week) is arbitrary; weeks can be assigned at the discretion of school authorities.

How the plans operate:

Plan 1--Shows 15-week trimesters, approximately 220 school days, vacation in August; an acceleration plan.

Plan 2--Shows 16-week trimesters with four weeks of vacation after each trimester; an acceleration plan.*

Plan 3--Shows 16-week trimesters with students enrolled at four-week intervals during first trimester; a five-group plan that adds the savings of sequential enrollment to savings possible through acceleration.*

Plan 4--Shows a 12-4 trimester plan, no acceleration, with approximately 180 school days in one calendar year. Students are enrolled at four-week intervals during first trimester.

Plan 5--Shows a 12-4 plan that preserves the unity of each academic trimester with different distribution of staff holidays. The plan can provide, with variations, 180, 185 or 190 schools days.

Plan 6--Shows the staggered quarter plan, most familiar of the sequential enrollment plans. Students are enrolled at 12-week intervals, attending three of the four quarters or approximately 180 days.

Plan 7--Shows a 9-3 quarter plan with students enrolled at three-week intervals during the first quarter. Provides approximately 180 days.

Plan 8--Shows enrollment divided into four groups, each attending six consecutive quarters followed by a vacation period of approximately six months.

Plan 9--Shows the "sliding" plan of Andrew Adams. Students are in attendance four quarters, followed by vacation in following quarter. Enrollment at 12-week intervals.

*With plans 2 and 3, in five years (six grade levels) each student will have one vacation period in each calendar month.

Reproduced, with permission, from The American School Board Journal, July 1968.
Copyright, 1968, The National School Boards Association, Evanston, Illinois. All rights reserved.

## STATE SUMMARY OF PUPIL TRANSPORTATION DATA FOR 1956 - 1968

| SCHOOL YEAR | District-owned buses | Privately-owned buses | Parental automobiles | Total annual mileage | Elementary pupils transported | High school pupils transported | Total transported by bus | Total transported by parental automobile | Total number "In Lieu Of" Pupils | Total operational cost of district-owned buses | Total contract cost of privately-owned buses | Total cost of BUS TRANSPORTATION | Total cost of PARENTAL TRANSPORTATION | Total cost of "In Lieu Of" Payments | Other costs of pupil transportation | Total cost for pupil transportation | AVERAGE COST PER BUS MILE | AVERAGE COST PER PUPIL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1956-57 | 153 | 50 | 160 | 1,521,172 | 6,979 | 2,404 | 9,383 | 378 | * | 363,762 | 153,443 | 517,206 | 39,026 | * | * | * | .340 | 56.98 |
| 1957-58 | 167 | 47 | 202 | 1,672,268 | 8,836 | 2,806 | 11,630 | 459 | 156 | 300,526 | 125,658 | 426,183 | 33,819 | 53,725 | * | 513,727 | .254 | 41.95 |
| 1958-59 | 170 | 41 | 167 | 1,954,950 | 8,475 | 3,052 | 11,527 | 342 | 177 | * | * | * | * | * | * | * | * | * |
| 1959-60 | 190 | 32 | 179 | 1,921,697 | 7,707 | 4,231 | 11,938 | 406 | 165 | 456,558 | 159,195 | 615,753 | 45,497 | 47,765 | * | 709,015 | .320 | 56.68 |
| 1960-61 | 209 | 37 | 286 | 2,380,453 | 9,177 | 4,893 | 14,070 | 523 | 181 | 540,898 | 180,620 | 721,518 | 56,234 | 44,971 | * | 822,723 | .333 | 56.46 |
| 1961-62 | 223 | 39 | 291 | 2,594,785 | 9,663 | 6,121 | 15,785 | 538 | 178 | 613,609 | 206,283 | 819,893 | 56,852 | 39,963 | * | 916,709 | .316 | 55.55 |
| 1962-63 | 238 | 38 | 253 | 2,678,162 | 10,719 | 7,496 | 18,215 | 682 | 189 | 694,700 | 233,296 | 927,996 | 82,793 | 43,730 | * | 1,054,519 | .346 | 55.25 |
| 1963-64 | 257 | 42 | 201 | 2,825,221 | 11,923 | 8,195 | 20,118 | 402 | 214 | 815,236 | 263,848 | 1,079,084 | 44,609 | 44,459 | * | 1,168,152 | .382 | 56.34 |
| 1964-65 | 278 | 37 | 166 | 3,520,416 | 13,832 | 9,346 | 23,178 | 405 | 207 | ,136,035 | 303,737 | 1,439,772 | 43,774 | 51,695 | * | 1,535,241 | .409 | 64.53 |
| 1965-66 | 299 | 39 | 187 | 3,741,853 | 13,929 | 10,809 | 24,738 | 431 | 197 | ,164,424 | 320,409 | 1,484,834 | 56,988 | 43,514 | * | 1,585,333 | .397 | 62.52 |
| 1966-67 | 312 | 42 | 223 | 4,053,374 | 15,112 | 11,925 | 27,037 | 502 | 182 | ,378,735 | 334,482 | 1,713,217 | 68,856 | 46,691 | 46,659 | 1,875,426 | .357 | 46.78 |
| 1967-68 | 350 | 43 | 219 | 4,179,875 | 17,517 | 17,953 | 35,470 | 577 | 183 | ,658,242 | 326,978 | 1,985,220 | 67,252 | 45,851 | 57,506 | 2,155,829 | .516 | 59.81 |

---

* Data Incomplete

## PUPIL TRANSPORTATION

### Present Practices

In the past twelve years the number of pupils transported by bus has increased from 9,383 to 35,470. Students transported by parental automobiles and those receiving "in-lieu-of" transportation payments have remained nearly the same. School districts have assumed the responsibility of transporting increased numbers of students from outlying areas of the state. The number of school district owned buses has increased 229 percent, but the number of contracted buses has decreased 14 percent.

During the 1967-68 school year the average cost per mile has increased, as it has yearly for the past five years, as school districts have purchased larger vehicles that are more expensive to operate. The cost per pupil had increased very little during the previous twelve year period. Routing and maintenance of vehicles has been improved. Eleven of the seventeen school districts now have their own vehicle maintenance facilities and personnel.

In past years, the State Department of Education, in conjunction with the Nevada State Highway Patrol, has conducted semi-annual inspections of vehicles used for pupil transportation. In the spring of 1967-68 a self-inspection program was utilized on an experimental basis.

All school bus drivers must receive instruction at the district level and be certified by the State Department of Education.

A trend toward using adult-female drivers seems to be emerging statewide. Pupil transportation data is collected and compiled at the State level for the purpose of reporting at the Federal level and to those other agencies who require the data for statistical base. The State Department of Education also provides transportation forms that are required by the school districts for contractual purposes.

The State Department of Education also establishes minimum school bus specifications and reviews district specifications to determine if minimum standards are met.

County school districts are responsible for determining the funding for the transportation of pupils, establishing routes, and personnel. They also have responsibility for entering into agreements with individuals or private carriers or for making payments in lieu of providing transportation.

## PUPIL TRANSPORTATION

### Emerging Mandates

I. **DISTRICTS MUST ESTABLISH LONG-RANGE PLANS TO MEET INCREASED NEEDS IN PUPIL TRANSPORTATION.**

Pupil transportation needs have increased at a rapid rate since 1956. It is anticipated that by 1978 over 500 school buses will be in operation in the State. During the same ten-year period, it will be necessary to replace the 350 vehicles currently owned and operated by the county school districts and at the same time purchase an additional 150 to 200 new vehicles. The Motor Vehicle Standards established at the Federal and State levels will have considerable effect upon the cost of new vehicles in the next few years.

II. **VEHICLE SPECIFICATIONS MUST BE CONSTANTLY UPGRADED TO MAKE BUSES SAFER, MORE MAINTENANCE FREE, AND MORE COMFORTABLE TO RIDE IN AS TRIPS INCREASE IN LENGTH.**

III. **INCREASED AND MORE VARIED USE OF SCHOOL BUSES SHOULD BE ENCOURAGED.**

The use of school district buses to transport students to various activities and for field trip purposes will increase. It is essential that students be exposed to the opportunities and resources of the state so they can gain first-hand knowledge of what the future holds for them. Further consolidation of schools is still difficult due to the length of time students must ride on buses. However, few efforts have been made to encourage students to utilize bus time to good advantage.

IV. **FURTHER CONSIDERATION SHOULD BE GIVEN TO THE UTILIZATION OF AIR-TRAVEL FOR SCHOOL ACTIVITIES.**

Some school districts have recently used air-travel to transport athletic teams for long distances, but attempts have not been made to utilize aircraft for field trips and other worthwhile programs.

## PUPIL TRANSPORTATION

### Recommended Exemplars

### MODEL I: Innovation in Transportation

Pupil transportation programs will be designed to meet the following criteria. Meeting these criteria will necessarily be a gradual process as new and better equipment becomes available and as the need for additional transportation presents itself.

OBJECTIVES:

1. School districts, working cooperatively with the State Department of Education, will develop experimental instructional programs that can be utilized while school buses are in route. Some districts now have radios installed in activity buses; however, instructional programs will be developed utilizing tapes and films.

2. The school bus will become a mobile classroom and resource center for pupils in isolated areas. When worthwhile programs, that can be utilized in route have been developed and tested, the attendance hours for bus students will be decreased to coincide with the school day for non-transported students. The same vehicles will also be used for field trip purposes and a fair segment of the instructional program may occur away from school.

3. Pupil transportation will not be solely a means of getting children to and from school, but an extension of the school itself. As highways and transit systems improve the rural areas will become less remote.

4. In order to maintain economical operations, it is essential that districts purchase larger vehicles and limit the number of personnel involved. Routing of vehicles will be studied continually to eliminate "dead head" miles and uneconomical routes.

5. Pupil transportation vehicles must remain the safest vehicles on the road. Standards and requirements for buses must remain high to prevent vehicle malfunctions that could result in accidents.

6. School districts will assume increased responsibility for the safety of transported students in addition to carefully evaluating the economic factors.

## SCHOOL LUNCH DIVISION

### An Introduction

The findings of the nationwide survey of food consumption of households made by the United States Department of Agriculture (USDA) in the spring of 1965 were released early in 1968. Comparison with findings of a similar survey made in 1955 revealed the following alarming trends:

| | 1955 | 1965 |
|---|---|---|
| Good diets (met allowances for all nutrients studied) | 60 percent | 50 percent |
| Poor diets (supplied less than 2/3 of recommended allowances of one or more nutrients) | 15 percent | 21 percent |

Nutrients most often in short supply were:

Calcium, Vitamin A and ascorbic acid

Relationship of income to poor diets:

| | |
|---|---|
| High income ($10,000 and over) | 9 percent had poor diets |
| Low income (under $3,000) | 36 percent had poor diets |

The results of this survey clearly indicate and reemphasize the need for food service not only to provide nutritionally adequate food so that during the school day at least one-third of the nutritional needs will be met and at the same time to provide nutrition education.

## SCHOOL LUNCH DIVISION

### Present Practices

#### Administration - State Level

The Nevada State Department of Education through agreement with United States Department of Agriculture (USDA) is responsible for administering the National School Lunch Program (NSL), including special assistance for qualifying needy schools and needy children; the Special Milk Program (SM); the Child Breakfast Program; Non-Food Assistance (Equipment); and for the distribution of USDA donated commodities to eligible outlets, including qualifying public and private schools, and summer camps; institutions, including child care centers and for the distribution to needy families by participating county welfare agencies. Responsibility for administration of these programs is delegated to the School Lunch Division. Administration at the county and local level is divided between the State Department of Education and qualifying outlets. Administration of the programs at the state level is under the supervision of the state supervisor and one paraprofessional and one clerical worker.

The state supervisor will have more responsibility since recent federal legislation has provided federal administrative funds to be used for program expansion. Trends indicate that the state supervisor will be required to attend more national and district meetings to implement mandates of new legislation. It will be necessary to improve and expand programs and to carry out directives from USDA to meet the critical need for nutrition education. It has not been possible to develop and conduct research and statistical studies to provide data for program evaluation and improvement.

### National School Lunch Program

Availability: National School Lunch (NSL) is available to approximately 43,000 children; 19,500 participate. During the fiscal year 1968, ten percent received free or reduced price lunches according to their economic need. But an estimated 32,600 children, excluding kindergarten children, are attending schools with no school food service. Generally speaking, school districts do not include kindergarten children in the program.

Administration: Programs are administered under the terms of agreements between the school districts and the State Department of Education. "The Policies of Operation" issued by the State Department of Education, together with instructions issued as the need arises, provides guidelines for operation of the program.

The policy for providing free or reduced price lunches, the method of determining eligibility, protecting the identity of the child, and financing of meals vary from program to program and district to district.

The two populous counties, Clark and Washoe, have food service departments. In the remaining districts, the prevailing practice is for a principal to serve as school lunch supervisor. Responsibilities are delegated to an appropriate staff for menu-planning, purchasing, preparation, and serving.

The type of supervision in the lunchroom varies from school to school and district to district.

Conditions for employment vary. Usually there are no educational requirements. Some counties and cities have ordinances requiring food handlers to meet health requirements and a food handler's card is issued. In some counties not having such ordinances, the county school districts have established a health regulation as a requirement for employment. Some districts take freedom from contagion into consideration in employing student help. One district has student helpers (fifth and sixth grade) covered under the Nevada Industrial Commission (NIC).

Capabilities of employees to implement food service vary.

The use of the lunchroom where good nutrition can be taught and practiced is frequently overlooked. Advancement and implementation of educational objectives vary from school to school depending upon the interest and understanding of administrators, school lunch personnel, and teachers. Personnel must accept the concept that school lunch is more than a "filling station." Goals must include providing "food for learning"; helping to build strong bodies;

promoting mental alertness; providing the setting for learning good food habits, table manners, group conduct, and a sense of responsibility. It is frequently overlooked that the lunchroom is suited to the teaching of many subjects.

## Supplementary Services

Snacks: Snacks are supplied from three main sources--snack bars, sale of confections and similar items, and snack programs using USDA donated commodities.

The operation of snack bars is quite limited. USDA donated commodities are used in the preparation of some of the items sold. Sale of nutritious items is not stressed.

The sale of soft drinks, confections, and similar items is common practice. Some of these items are sold in and near cafeterias and school lunchrooms. A variety of projects are financed through the sale of these items.

A number of snack programs were started in the 1967-68 school year, principally in the elementary schools, using donated commodities. All programs used frozen orange juice concentrate and raisins. This school year, requests have been received for both continuation and expansion of these programs. A pilot program is being planned in one county where orange juice and raisins will be served in additional schools, and consideration is being given to the addition of high protein items.

Breakfast Programs: At present there are no breakfast programs being operated under the Child Nutrition Act. There are a few independent programs in which help is given through the receipt of donated commodities. Some programs provide snacks before school.

Special Milk Program: The milk program is operating in 194 schools. Purpose of the program is to develop milk drinking habits among children and to improve their well being. Funds are not available to reimburse all schools at maximum rates or to develop programs of providing milk to qualifying needy children through reimbursing the schools for the full cost of the milk.

## A La Carte Services

A la carte service is provided only to students enrolled in high schools and junior high schools. Last school year a la carte service was available to approximately 25,000 students.

The programs are administered by school districts with no controls or regulations established by the State that food service may be a nonprofit operation in order to receive USDA donated commodities.

## Commodities

Commodities are distributed to:

1. Schools

    a. Public and one private school participating in the National School Lunch Program have an average daily participation (ADP) for FY 1968 of 18,374. .

   b. Nonnational School Lunch Programs--principally a la carte service with an ADP of 14,251 (ADP for a la carte determined by formula.)

2. Institutions

   a. Twenty-six institutions with an ADP of 1,373 for FY 68.

3. Summer Camps

   a. Serving 8,248 children for the summer of 1968.

4. Welfare

   a. Eleven county welfare agencies with another county finalizing plans. Commodities were distributed to 2,809 individuals in August 1968.

Commodities with a San Francisco Wholesale Fair Value (SFWFV) of $864,917.82 were received for distribution in Nevada in FY 1968.

Increased emphasis by USDA for improving the nutrition of low-income families has greatly increased the scope of the needy family program. For some time prior to this increased emphasis on improving diets of low income families, it has not been possible to administer the commodity program and the other educational programs effectively under the direction of the School Lunch Division. In fact, educational programs had to suffer because of the scope and nature of administrative responsibilities and numerous emergencies that arise in the commodity program. Administration at the state level is paid for from State Department of Education funds. At least 50 percent of the state supervisor's time and 75 percent of the time of the other two members of the staff is devoted to this program.

## SCHOOL LUNCH DIVISION

### Emerging Mandates

I. **NECESSARY STEPS MUST BE TAKEN TO AUTHORIZE SUPERVISION OF ALL SCHOOL FOOD SERVICES BY THE SCHOOL LUNCH DIVISION.**

Authorizing supervision of food services will help insure educational objectives, and program expansion made possible by the use of federally appropriated funds will be more easily implemented. The recommendations made at the school lunch workshop sponsored by USDA in March 1968, will also be carried out.

II. **THE POSITION OF FIELD SUPERVISOR SHOULD BE ESTABLISHED.**

The field supervisor should have background in nutrition and experence in the operation of school lunch kitchens and in food service. This supervisor will also perform field supervision as required by USDA and thus free the state supervisor to administer the assigned programs.

III. **THE STAFF IN THE LUNCH DIVISION SHOULD BE INCREASED**

Increased staff will relieve the employee who presently is responsible for the Commodity Distribution Program and enable him to devote more time to research and to statistical and other studies.

Increased staff will also enable the division to resume publication of "School Lunch News." Published material will aid the cook-managers and their staffs.

IV. **PLANS FOR EXPANSION MUST CONFORM TO NEW NATIONAL LEGISLATION WHICH PROVIDES FUNDS FOR PROGRAM EXPANSION TO NEEDY SCHOOLS AND NEEDY CHILDREN NOT NOW COVERED.**

Appropriate administrators should develop a plan to make the most constructive use of available funds within the regulations as established by USDA, and should make plans to expand programs to meet the more urgent needs for National School Lunch and School Breakfast programs.

V. **SCHOOL DISTRICTS MUST PREPARE A WRITTEN POLICY ESTABLISHING ELIGIBILITY REQUIREMENTS AND GUIDELINES FOR FREE AND REDUCED PRICE MEALS, AND FOR REVIEWING AND IMPROVING METHODS FOR PROTECTING THE IDENTITY OF CHILDREN RECEIVING FREE OR REDUCED PRICE MEALS.**

Policy must recognize nationwide emphasis on free and reduced price lunches for needy children. Rules and regulations published in the Federal Register on October 22, 1968, together with suggestions from the State Department of Education, will be submitted to school districts for their use in developing policy to comply with the regulations. Help from the state office will be given to districts as requested.

VI. **IMMEDIATE STEPS SHOULD BE TAKEN TO ENCOURAGE SCHOOL DISTRICTS, NOT ALREADY COVERED BY ORDINANCE OR SCHOOL BOARD POLICY, TO REQUIRE PROOF OF FREEDOM FROM CONTAGION AS A CONDITION FOR EMPLOYMENT IN SCHOOL FOOD SERVICE AND TO ESTABLISH SOME TYPE OF HEALTH REQUIREMENT FOR STUDENT HELPERS.**

Such requirements are necessary to protect the health of our children and staff.

VII. **A NEW ENVIRONMENT IN SCHOOL LUNCHROOMS SHOULD BE ESTABLISHED.**

Appropriate staff should be encouraged to see that children enjoy their lunch in a relaxed manner and receive maximum benefit from it.

VIII. **SERVICE FROM THE STATE SCHOOL FOOD SERVICE DIVISION SHOULD BE DIRECTED PRIMARILY TO MEETING THE NEEDS OF THE LESS POPULOUS COUNTIES.**

The two populous counties have full-time food service directors. The needs of the remaining counties differ in many respects from those of Clark and Washoe. Local needs for training programs vary. Because of distances between communities, on-the-job, in-service training must be provided to meet present needs, and the supervisor must spend three to five days with the local cook-manager. Such help will include training in nutrition, menu planning with emphasis on the maximum use of donated commodities, securing plentiful foods and other foods as needed to provide nutritionally adequate, reasonably priced lunches. Instruction will be given in quantity buying to insure the best use of available funds; in quantity food preparation and serving, including meeting sanitation and safety standards; in methods of work simplification; in way of retaining nutrients and serving well flavored, attractive lunches. Also, training will be given in management, proper storage, and care and use of equipment. Technical help will be available to meet school districts' needs for consultation regarding remodeling, planning, and equipping school kitchens and lunchrooms. Help will be provided for selecting efficient and practical equipment, for using convenience foods where appropriate, and for meeting demands of increased participation.

IX. **DISTRICT WORKSHOPS FOR A GROUP OF SCHOOLS WHICH HAVE SIMILAR PROBLEMS AND WHICH ARE GEOGRAPHICALLY ACCESSIBLE SHOULD BE HELD ONCE OR TWICE A YEAR, AND A STATEWIDE WORKSHOP SHOULD BE CONDUCTED AT LEAST EVERY OTHER YEAR.**

Planned training must be provided on a continuing basis.

X. **LEADERSHIP RESPONSIBILITY MUST BE ASSUMED AT THE STATE LEVEL IN DEVELOPING AND IMPLEMENTING NUTRITION EDUCATION COORDINATED WITH SCHOOL FOOD SERVICE TO PROVIDE GUIDANCE IN ACCORDANCE WITH THE PUPILS' DEVELOPMENT AND NEEDS.**

The state supervisor should work with appropriate groups including the State Nutrition Council (the state supervisor is chairman of the section devoted to nutrition education in the elementary and high schools) in order to effectively coordinate efforts; develop the means to motivate school administrators, teachers, and school lunch staff to use the school lunch program as a laboratory for "nutrition in action," thus taking advantage of the largest living laboratory where good nutrition can be taught and practiced; develop means to become more effective in changing established poor eating practices; develop means to improve pupil acceptance at the secondary level; and develop means to arouse parents so there will be correlation with meals at home and school.

XI. **A POLICY SHOULD BE ESTABLISHED TO ELIMINATE THE SALE OF SOFT DRINKS, CANDY AND THE LIKE IN OR NEAR THE SCHOOL LUNCHROOM OR CAFETERIA.**

Such sales should prohibit participation in any of the Federal-State programs, including the receipt of donated commodities only. Teenagers are the most undernourished among all age groups. Six of ten girls and four of ten boys are undernourished. The consumption of soft drinks, confections, and similar snack items endanger the development of sound food habits. Furthermore, the sale of such items give the public the impression that the school endorses there use.

The American Medical Association, the Council on Dental Health of the American Dental Association, the National Congress of Parents and Teachers, the American School Food Service Association, the American School Business Officials and many other groups have taken firm stands in opposition to the sale of soft drinks, confections, and similar snack items on the school campus during the school day or in the school lunchrooms.

Snacking is commonly indulged in by today's youth. School boards should be encouraged to adopt policies limiting the sale of snack items to those which meet the nutritional needs of pupils and promote the development of sound food habits.

## XII. A POLICY OF REIMBURSEMENT MUST BE ESTABLISHED IN THE SPECIAL MILK PROGRAM TO ELIMINATE THE NECESSITY OF DISCOUNTING CLAIMS.

Maximum rates for various types of schools will be determined by funds available and by the use of approved criteria. The inadequacy of funding for the Special Milk Program must be brought to the attention of our congressmen.

## XIII. REGULATIONS MUST BE ESTABLISHED GOVERNING PARTICIPATION IN THE DONATED COMMODITY PROGRAM FOR SCHOOLS OPERATING A LA CARTE SERVICE.

Items to be considered when seeking State Board approval are requirement for meeting some nutritional standards; eliminating the sale of soft drinks, confections, and similar items in and near the cafeteria; establishing a reporting procedure similar to that of National School Lunch; reporting the number of plate lunches served and information on income and expenditures; determining the rate of distribution for special commodity items; and establishing reasonable controls over the food service operation, including the providing of free or reduced price meals to needy youth.

## XIV. NECESSARY STEPS SHOULD BE TAKEN TO RELIEVE THE SCHOOL LUNCH DIVISION OF RESPONSIBILITY FOR THE COMMODITY PROGRAM EXCEPTING IN SCHOOLS.

Distribution to schools should remain with the division in order to maintain control of and supervision over the program. The administrative burden brought about by increased requirements of USDA and responsibilities delegated to the State Distributing Agency particularly regarding the needy family program make it imperative that relief be obtained in order to administer effectively the educational programs delegated to the School Lunch Division.

## XV. A REVISED POLICY MANUAL SHOULD BE PREPARED TO BRING PROCEDURES UP TO DATE.

A basis for increasing efficiency of administration at all levels should be provided.

# FOOD SERVICES

## Recommended Exemplars

### MODEL

OBJECTIVES: The State School Lunch Division working cooperatively with the seventeen county school districts will strive to meet the following objectives for food services:

1. School food service should provide a pupil-centered nutrition and education-oriented food service program with all children having an opportunity for lunch at school and supplementary services as needed.

2. School food service should distribute USDA donated commodities to eligible school districts and/or schools in accordance with agreements between the eligible outlets and the State Department of Education and the agreement between the State Department of Education and the United States Department of Agriculture.

IMPLEMENTATION: In order to realize the above stated objectives, the following steps will be considered, initiated, and implemented when appropriate and practical.

An adequate well-qualified staff will give creative leadership in developing food service to meet the changing needs of our youth with emphasis on the educational aspects that will motivate children to practice "nutrition in action".

School lunch services will become available to all Nevada public school children with their acceptance by the majority of children and youth. Additional means of financing the program will be explored to assure maximum participation and benefits.

Standards will be developed for employing school food service personnel, and the means for complying with the standards shall be provided so that all school food service personnel will be adequately trained.

Plans will be made to explore the use of educational television for training purposes and for exploring other innovative possibilities for training. Plans will be made to make the best use of the abilities and skills of experienced food service supervisors possibly by mergering programs to include neighboring school districts. Skillful management could increase economy in purchasing as well as other economy.

In order to safeguard the health and well being of the State's children, the food and beverage items sold in schools during the regular school day shall be only those that can contribute to sound nutritional programs and educational goals.

Eventually, the a la carte service will be replaced with the Type A Lunch allowing for a choice within the Type A pattern to provide a nutritionally adequate lunch.

Direction will be given through workshops, newsletters, and other appropriate media to use USDA donated commodities effectively in school food service, to increase the nutritive value of foods served, to reduce costs of purchased food, and above all to encourage "nutrition in action."

## TEACHER EDUCATION

### Present Practices

Teacher Education is that education which embraces the total spectrum of teacher qualifications, preparation and training or retraining. This includes preservice education, in-service education, and training or retraining of teachers. Preservice Education is that education usually received by a teacher or teacher aide prior to being employed in a school or receiving a teaching credential. This education can broadly be considered that basic education needed to qualify for beginning service. In-service Education is that education received after being qualified for service and that education carried on during employment in a school system. Its basic purpose is to improve competency of personnel in their subject fields and/or in those related generalized skills which improve their teaching efficiency.

Preservice education has as its main objectives the qualification of personnel for service in the schools; therefore the responsibility for obtaining this training has fallen on the teacher. Presently, most teachers are educated for the profession in established undergraduate programs at the university level. This training includes prescribed courses in subject matter areas and a requisite number of selected courses in education. Most of the education courses required have little identification with the actual school situation and rarely aid in the practical development of subject matter or student relationships. Actual contact with school environment is limited to supervised teaching which accounts for a small portion of the senior student's course work. For most, supervised teaching provides the first opportunity to really know what goes on in the classroom. The majority of accredited college or university education courses of study fulfill the requirements for accreditation established by the State Department of Education.

In-service education is a potpourri in comparison with the well defined perimeters of preservice education. Whereas most preservice courses are taught at the university within a well defined curriculum for one specific purpose, in-service education is taught in a number of different locations, with or without well defined structure and for a multitude of reasons.

Courses are taught at public and private schools, hotels, natural retreats, universities and colleges.

The time for taking in-service courses may be during the school day, on weekends, in the evenings, during holidays, and throughout the summer.

Individuals enroll in in-service courses to upgrade their competence, advance on the salary scale, attain advanced degrees, be recertified, advance to administrative positions. Courses designed to help teachers meet these needs have been termed "in-service education;" however, for the purpose of describing mandates and exemplars, the prior definition will be used. In-service education other than that defined is the responsibility of the individual and not of the school system, either local or state.

The degree to which present in-service courses meet the needs of students, teachers, schools, and communities is nebulous. In-service education has been treated as an appendage to the total educational program, rather than as a necessity for maintaining and updating curriculum and instruction.

# TEACHER EDUCATION

## Emerging Mandates

A seminar of teacher-educators, administrators, teachers and student teachers sponsored by the Center For Coordinated Education, University of California at Santa Barbara developed and compiled mandates and assumptions concerning teacher in-service education. These represent a cross section of the United States and are comprehensive and are appropriate to Nevada.

**I. IN-SERVICE EDUCATION MUST INCREASE THE COMPETENCE OF THE TEACHER.**

The competent teacher is a strategist, able to manage a variety of tatics to accomplish a designated purpose. To be competent the teacher must have a repertoire of efficient techniques, the sound knowledge of the intellectual ideas to be taught, the ability to respond spontaneously to teaching opportunities whenever they emerge in the classroom, a proper preception of the educational process, and the capacity to interact with the learner sensitively and compassionately.

**II. TEACHER IN-SERVICE EDUCATION MUST BE PROVIDED IN SMALL, MANAGEABLE UNITS.**

Each unit must be based upon an analysis of the teaching tasks, prepare the teacher to perform the task successfully, and specify the criteria which will determine performance success. Training activities should be sequenced so that teachers may progress through a cycle of retraining units which gradually increase in complexity. The program and its component unit must be sufficiently flexibile to allow each teacher to begin at his own level of ability and to progress at his own rate. The unit should make use of alternate training methods in order to accommodate teacher differences in learning needs and work styles.

**III. RETRAINING MUST BECOME A PERMANENT PART OF THE SCHOOL ORGANIZATION.**

Retraining will allow professional growth to become sequential, cyclic, and continuous.

**IV. TEACHER IN-SERVICE EDUCATION MUST TAKE PLACE DURING THE TEACHER'S PAID TIME.**

This will further guarantee the availability of such training to all teachers. In-service education will acquire a tone of professional responsibility.

**V. THE TEACHER'S ABILITY TO PERFORM A SPECIFIED TASK AS A RESULT OF IN-SERVICE TRAINING MUST BE ASSESSED.**

The initial assessment should determine the nature of the required training, and the final assessment should verify performance competence. When possible, the assessment should not only estimate improvements in performance but should also diagnose teaching habits which limit the teacher's effectiveness. The efficiency of the training program may then be judged by comparing the teacher's performance at the beginning and end of each in-service teaching unit.

VI. ASSESSMENT OF TEACHER ABILITY SHOULD BE BASED UPON THE APPRAISAL OF TEACHER PERFORMANCE AND, WHERE APPROPRIATE, UPON MEASURABLE STUDENT ACHIEVEMENT.

VII. THE IN-SERVICE EDUCATION UNIT MUST ALLOW THE TEACHER TO ACQUIRE THE KNOWLEDGE, SKILLS, AND ATTITUDES WHICH ARE PREREQUISITE TO ACHIEVING THE DESIRED COMPETENCE.

VIII. IN-SERVICE EDUCATION UNITS SHOULD GIVE PRIORITY TO GENERIC TEACHING TASKS WHICH HAVE THE WIDEST APPLICABILITY.

IX. WHEREVER POSSIBLE, IN-SERVICE EDUCATION SHOULD MAKE USE OF REAL TEACHING SITUATIONS INVOLVING ACTUAL STUDENTS.

A wide range of training devices, including programmed instruction, computer assisted instruction, films, videotape, interaction analysis, individual reading and seminars, should be used where appropriate.

X. THE IN-SERVICE EDUCATION PROGRAM MUST BE ADJUSTED TO THE SPECIFIC SCHOOL (ALTHOUGH IT MAY HAVE MUCH IN COMMON WITH OTHER PROGRAMS).

In-service education will then be appropriate to the particular instructional setting, the nature of the learners, the available materials and resources, and the instructional objectives.

XI. THE IN-SERVICE EDUCATION PROGRAM MUST NOT INTERFERE WITH INDIVIDUALITY OF TEACHING STYLE SO LONG AS PERFORMANCE EFFECTIVENESS IS NOT IMPAIRED.

While some teaching tactics clearly are more effective than others, and while different teaching situations require different tactics for the accomplishment of the objective, the retraining program must assume that judgments regarding either what is to be taught or how it is to be taught are always subject to alteration.

XII. TRAINING PROGRAMS MUST BE PARALLELED BY EXPLICIT PERFORMANCE INCENTIVES, WHICH MOTIVATE THE TEACHER TO USE ACQUIRED SKILLS.

XIII. SELECTED CLASSROOM TEACHERS SHOULD BE PREPARED TO SERVE AS IN-SERVICE EDUCATION SPECIALISTS.

XIV. INDIVIDUALS WHO SUPERVISE THE TEACHER MUST ALSO ENGAGE IN THE TRAINING PROGRAM.

XV. THE IN-SERVICE EDUCATION UNIT SHOULD PARALLEL AN EFFORT BY THE SCHOOL TO INCREASE SPECIALIZATION AND DECREASE THE RANGE OF THE TEACHER'S WORK.

The training unit could then give teachers alternate procedures for achieving a desired end, and the ability to decide when the use of a particular alternative is appropriate.

XVI. THE TEACHER MUST RECEIVE FREQUENT EVIDENCE REGARDING HIS GROWTH DURING THE IN-SERVICE EDUCATIONAL PROGRAM.

XVII. THE TRAINING UNIT SHOULD BE OFFERED AT A TIME WHEN THE TEACHER CAN PRACTICE THE SKILLS INHERENT IN THE PERFORMANCE TASK IN CONJUNCTION

WITH HIS REGULAR TEACHING.

XVIII. SINCE IN-SERVICE EDUCATION SHOULD ABET EDUCATIONAL CHANGE, TRAINING UNITS SHOULD ADVANCE EDUCATIONAL INNOVATION WHEREVER POSSIBLE.

While the training unit should develop specific techniques for accomplishing a teaching goal, it should not impair teacher's personal inventiveness, or limit them to behavior that is predetermined.

XIX. IF THE IN-SERVICE TRAINING PROGRAM IS TO BE EFFECTIVE AND EFFICIENT, IT MUST HAVE ADEQUATE RESOURCES OF TIME, MATERIALS, AND MONEY.

At the same time, to be realistic the in-service program must accommodate the restrictions imposed by the school's budget. For these reasons, time for teacher training may be gained by new patterns of staff deployment: Team-teaching, flexible scheduling, use of para-professionals and other teacher aides, systems of large and small group instruction, and machine-programmed learning.

XX. TEACHER IN-SERVICE EDUCATION PROGRAMS MUST BE COMPULSORY.

A teacher should conclude a training unit when the designated performance level is reached. Because of demonstrated competence, some teachers may not require a training unit at all.

XXI. THE TIME DEVOTED TO A GIVEN TRAINING OBJECTIVE SHOULD VARY ACCORDING TO THE COMPLEXITY OF THE SUBJECT AND WITH THE ABILITY OF THE INDIVIDUAL TEACHER.

Thus, various units will require different amounts of training time.

XXII. THE IN-SERVICE EDUCATION PROGRAMS MUST ASSUME THAT THE TEACHER HAS A PURPOSE.

The teacher's purpose should be to change the behavior of the student in some way. Until the teacher can measure some degree of change, the teaching may have failed.

XXIII. EACH EDUCATION UNIT MUST EQUIP THE TEACHER TO FORMULATE AN OBJECTIVE--TO PURSUE IT--TO JUDGE ACCURATELY WHETHER IT HAS BEEN ACHIEVED--AND TO ANALYZE AND UNDERSTAND THE CAUSES OF FAILURE WHEN IT OCCURS.

# TEACHER EDUCATION

## Recommended Exemplar

OBJECTIVES: Preservice and in-service education will become two phases of continuing teacher education. The goals and purposes will be closely associated, the basic difference being the initial step of qualification for the preservice personnel. Both programs will be responsible to the need for more exposure to the real classroom situation in the development of goals and objectives.

CONTENT: In-service programs will develop as a result of total school or district planning for the educational development of each child to his fullest potential. School districts will not continue to afford in-service programs based upon haphazard planning and undefined goals.

METHODOLOGY: The following conditions are essential to an effective in-service education program:

1. Training will take place in small, self-contained units, each of which develops the ability to perform a specific teaching task.
2. Each unit will give the teacher the knowledge, skills, and attitudes essential to the achievement of a specified performance capability.
3. The objectives of the training units will be based upon the teacher's classroom functions.
4. The training program will allow the teacher to practice the skills inherent in a training unit over a sustained period of time.
5. The teacher will have strong motivation to participate in the training units.
6. The teacher will have ready access to the trainer, during and after the training unit.
7. The training units will be offered in a sequence of ascending difficulty.
8. The capabilities to be developed must be tangibly valued by the school administration;
9. The training program will become a permanent part of the school operation, and will make realistic provision for necessary training time, materials, and training personnel.
10. Insofar as possible, the training units will promote promising innovations, enhance teachers' satisfaction with their work, develop unusual abilities in individual teachers, and produce greater efficiency and precision in instruction.

# TEACHER SUPPLY AND DEMAND

## Present Practices

Recruitment of the teachers required to staff Nevada's public schools has, historically, posed a problem. The State's single teacher education institution, the University of Nevada, has been unable to meet the needs of the State's school districts for new, additional, and replacement teaching personnel. School districts, have thus always been faced with recruitment of staff from other states.

The annual demand for teacher to fill vacant and newly established teaching positions reached a peak of 1,178 for the 1962-63 school year. The University of Nevada supplied 90 teachers who accepted placement in Nevada, less than eight percent of the total need. During the 1963-64 school year, school districts required slightly fewer teachers, 1,135. The university graduates who entered teaching in Nevada numbered 122, leaving a deficit of 988.

The demand for teachers kept pace with the accelerating growth in population during the 1950's and until the mid-1960's.

Recent information obtained from all of Nevada's seventeen school districts indicates a similar situation existed during the 1967-68 school year and that it will continue into and beyond the 1968-69 term.

### Certificated personnel report for 1967-68

| | | |
|---|---|---|
| Teachers hired with no experience | | 379 |
| Teachers hired with experience | | 607 |
| Sub-total | | 986 |
| Teachers hired for additional positions or as replacements | | 144 |
| Total teacher demand | | 1,130 |
| University of Nevada graduates hired | | 103 |
| Reno Campus | 67 | |
| Nevada Southern | 36 | |
| Deficit | | 1,027 |
| Estimate of Personnel Needs 1968-69 | | |
| Teacher replacements to fill vacant teacher stations | | 771 |
| Teachers to fill newly established positions | | 197 |
| Sub-total | | 968 |
| Estimated needs for replacements, new positions during school year (12%) | | 132 |
| Total teacher demand | | 1,100 |
| Estimated Nevada supply | | 125 |
| Deficit | | 975 |

As the State of Nevada grows in population, the demand for more teachers will increase. The number of teachers needed is expected to be slightly over 6,000 in the early 1970's. The annual demand for replacements because of retirement, resignation, death, and entrance into another occupational field, will exceed 1,200 teachers by the same time. The need to expand teacher education in Nevada's preparing institutions, the need to make a career in education attractive, and the need to achieve reciprocity in teacher certification call for leadership and action by the State's educators, the Legislature, and the public, in order to insure that the children of the State receive adequate and quality education.

## TEACHER SUPPLY AND DEMAND

### Emerging Mandate

I. THE NEVADA STATE DEPARTMENT OF EDUCATION MUST INITIATE IMMEDIATE AND EFFECTIVE STEPS TO REDUCE THE EXISTING GAP BETWEEN TEACHER SUPPLY AND TEACHER DEMAND.

The inadequacy of teacher education programs at Nevada's two preparing institutions is apparent from the tables. Resultantly, school districts must enter the highly competitive and expensive field of recruitment of teachers from out-of-state institutions or from other states. Better teacher salaries in states where personnel was once recruited aggravate the situation, along with increasingly competitive efforts by other states with teacher supply deficits. The expense of teacher recruitment programs, for personnel and costs, is indicative of an urgent need for action at the State level.

## TEACHER SUPPLY AND DEMAND

### Recommended Exemplars

### MODEL

An interrelated program appears to be urgently needed, one which is focused on the following components:

### Secondary School Level

A concerted action program under the leadership of the State Department of Education, in cooperation with local school districts and the professional organization, will be established to sell "Teaching as a Career" to young men and women enrolled in the secondary schools. A realistic occupational guidance program focused on career planning will be developed, beginning at the junior high school level. The requisites for and opportunities through a career in education will be points of emphasis. The active assistance of teachers, counselors, and school administrators will be essential to the success of the program, and a revitalized, active future teacher organization will be incorporated in every secondary school.

An experiential program for students interested in teaching, whereby students would serve as auxiliary personnel part of each day, will serve to introduce them to the profession. An elective course for training purposes will be established, and credit toward graduation allowed. Payment for actual time spent as teacher aides would be an added inducement for many senior high school boys and girls. This procedure will serve as an introduction to a career in teaching and result in more high school graduates entering teacher education.

Educational loans to students entering teacher education will serve as an inducement to high school graduates, particularly if the loans hold a forgiveness clause permitting cancellation after five years service as a teacher.

## College and University Level

Expansion of teacher education programs in Nevada's two institutions approved for preparation of teachers is a most evident need. Additional facilities, staff and equipment at the University of Nevada, Reno, and Nevada Southern University, Las Vegas, to enable expansion of current programs will be required to meet the needs of the State's public schools and the demands of increasing numbers of high school graduates entering teacher education.

Teaching as a career will be "sold" to prospective students during the early college years. Improved advisement and career counseling and planning will be necessary. Vocational objectives will be an integral part of each student's advisement. Cooperation between college of education staff members and staff members of other colleges in the university is recommended as basic to a total university approach to teacher education.

More realistic experiential programs in teacher education are vitally needed. Restructuring of programs in teacher education, interdisciplinary courses developed to meet the emerging needs for more and better trained teachers, and new and more effective methods and techniques of preparation for teaching will be incorporated. Departure from the "cafeteria counting" of hours and credits in each subject for completion of a program leading to a degree would obviate institutions' demand for a fifth year of preparation. Evaluation of current course content and structure will be initiated, and why four years of preparation is necessary or justified examined. Closer relation between colleges and universities and school districts, who are the "buyers of the product," will be established so that realistic teacher education programs may be developed and made operational.

A direct relationship is necessary between teacher education preparation and the daily functions performed by the teacher. Teacher education programs will place emphasis on interpersonal relations, such as teacher-pupil, teacher-parent, teacher-staff, and teacher-administrator relationships. The need for improved knowledge and understanding of children is apparent, especially in relation to children who belong to minority and/or ethnic groups. Realistic preservice preparation through extended direct contact and service in a variety of school situations is recommended in addition to supervised teaching.

## School District and State Education Agency

A good teacher coming directly from a baccalaureate program is an exception. Good teachers are produced at the local district level over a minimum two-year period. School districts and state departments of education have a joint responsibility to plan and carry out a program of in-service preparation for the new teacher.

The concept of a career in education should be firmly developed during the first two years of service. The beginning teacher will also become acquainted with the professional organization which shares responsibility for career development. His undergraduate preparation will be supplemented by a planned program of in-service education designed to reinforce earlier training and produce proficiency in teaching. Innovative training, such as the mini-course techniques, will be developed and utilized in addition to emphasis of interpersonal relations involved in the daily operation of classroom and school.

Following completion of two years of teaching, the teacher should enter a program designed by the district and the university to supplement and reinforce the skills acquired. A five-year period should be allowed to complete a fifth year of preparation. Both undergraduate and graduate courses are recommended. Interdisciplinary courses will be developed to meet teacher needs as opposed to numerous two or three credit single-disciplinary courses. Present courses will be frequently evaluated and restructured to meet current needs of teachers. Repetitive courses will be realistically condensed, combined, or eliminated completely. The university and the school district will be the essential agencies which will during the five-year period, develop the career in education concept.

In-service education programs will continue at the school district level. Intensive short courses are recommended and should be focused on general needs of all teachers for improved understanding of national and international affairs, our economy, politics, and culture. The central motive will be that of implementing the concept that teachers should be broadly educated persons.

Salaries should reflect the training and competency of teachers. Pay schedules based only on longevity serve as a deterrent to the career concept. A ten-thousand-dollar-plus basic salary after completion of the fifth year and demonstrated proficiency would function to retain capable young men and women in the profession. Quality in education would be achieved and true professional status of teachers would be recognized.

## Reciprocity in Teacher Certification through the Approved Program Approach

The State Department of Education is participating in a regional and national drive to effect interstate reciprocity in teacher certification. The increasing mobility of teachers in the United States and the continuing short supply of teachers to staff Nevada's schools has encouraged reciprocity. The fact that over 60 percent of Nevada's teacher demand for the 1967-68 school year was filled by recruitment of experienced teachers from out-of-state also indicates a need for certificating a capable teacher on the basis of having completed an approved program of preparation, rather than by credit and course counting procedures.

Under the approved program approach for certification, state departments of education will evaluate the teacher education program conducted by universities or colleges in the state. Each state will forward to departments of education of the states with whom reciprocity agreements have been made, a list of accredited institutions and the approved programs of preparation conducted by each school. The deans or department chairmen will sign each graduate's record of preparation, certifying completion of an approved program of preparation for for a specific teaching field.

Certification officers will accept the verification and issue an initial certificate authorizing teaching in the public schools of the state to which an individual plans to come.

Evaluation of programs will be accomplished by committee visitations and by the application of the standards and guidelines for approval developed by the National Association of State Directors of Certification and Teacher Education with the cooperation of the U. S. Office of Education, the American Association for the Advancement of Science, professional associations such as those of English teachers and foreign language teachers, and college and university staffs. The guidelines were established as a project to effect reciprocity in 1962 and represent the contributing efforts of the nation's outstanding leaders in education, teacher preparation, and the academic disciplines. The application of the guidelines to each program will not result in restrictive national uniformity in teacher education. Institutions are allowed flexibility within each program, and the opportunity to create and innovate procedures remains unchanged. The standards will serve to insure proficiency in teaching fields and to establish a basis on which reciprocity in certification can be accomplished.

Reciprocity will be developmental; currently, only a small number of states issue initial certificates on a regional basis to persons who have completed approved programs. Other states will adopt the approved program approach within the next few years and national reciprocity will become a reality. A capable, well prepared teacher in Wisconsin should be able to secure certification without difficulty in Nevada, as well as in other states. Moving from one state to another hardly make a teacher become incompetent. As a result, Nevada's public schools will benefit from interstate reciprocity in certification. Recruitment of new and experienced teachers will be facilitated. A recent study shows that the most competent teachers are ones who have traveled widely, taught in several states and communities. Consequently, children enrolled in Nevada schools will also benefit from reciprocity since it accelerates the recruitment of teachers from other states.

# TEACHER AIDES

## Present Practices

The utilization of teacher aides is a relatively new development for the schools of Nevada. Presently, eight districts in the State of Nevada do not use teacher aides. Nine districts utilize teacher aides to some extent. The first aides in Nevada were employed in 1963. Most districts began employment of aides in 1966 or 1967.

The largest number of teacher aides are employed in the pre-school and the early school years. Teacher aides are utilized to a lesser extent in the middle and prevocational years, but there is an apparent trend toward using them more expensively. Further utilization is limited, however, because many people do not understand the role and responsibility of teacher aides.

Of the districts that utilize aides, 44.4 percent require at least a high school education for teacher aides, while 33.3 percent require some college preparation but not a degree. One district requires no educational preparation, and another district requires that aides be eligible for certification at the grade level where they may be employed.

In some districts in Nevada one person, usually the school principal, is responsible for the selection of teacher aides. However, in most districts utilizing aides, groups are involved in the selection, usually the principal and the central office staff.

The use of conferences, generally informal and nonstructured, is the most common method of training teacher aides. Two districts use pre-school institutes to train aides. One district utilizes in-service workshops. Several districts are presently considering in-service courses through adult education to train teacher aides.

Supervision of teacher aides is primarily the responsibility of principals. It should be noted, however, that in many districts teachers share in the responsibility of supervising aides. The activities of teacher aides include one or more of the following: (1) Duplicating tests and other materials; (2) helping with classroom housekeeping; (3) typing class materials, tests, etc.; (4) setting up audiovisual equipment and other instructional materials; (5) helping with children's clothing; (6) supervising the playground; (7) supervising lunchroom; (8) correcting tests, homework, workbooks, etc.; (9) assisting in the school library; (10) collecting money from pupils; (11) keeping school lunch reports; (12) keeping attendance records; (13) helping with music in rural schools; (14) supervising studyhalls; (15) checking inventories; (16) ordering books and supplies; (17) setting up displays; (18) assisting the school nurses or the school librarian; (19) supervising bus loading, supervising field trips; (20) playing the piano; (21) showing movies; (22) reading stories; (23) assisting handicapped pupils. Most districts accept the aide to perform nonteaching tasks. This policy is never really clear, however, perhaps because the role of the professional teacher has never been clearly defined.

There is insufficient data to reveal the effect that teachers' aides have had on the total educational program. Growing concern is evident as to how and where aides may serve to best advantage. And as the mandates will reveal, there are significant cautions to be exercised in the employment of teacher aides. Though a number of districts are utilizing the services of teacher aides, there is no clear understanding of the acceptable functions and services to be performed by teacher aides nor of their exact relationship to the educative process and program.

## TEACHER AIDES

### Emerging Mandates - Introduction

The following mandates were developed in essence by Garda W. Bowman and Gordon J. Klopf, in a nationwide study of teacher aides, teacher assistants, family workers, and other auxiliary personnel in education. The study was conducted for the Office of Economic Opportunity by the Bank Street College.

I. **THE ROLE SPECIFICATIONS AND PREROGATIVES OF AIDES MUST BE CLEARLY DEFINED.**

Specifications will prevent either under-utilization of order by unconvinced professionals or their over-utilization by harried administrators faced by manpower shortages. The functions of individual aides and of the professionals with whom they work should be developed reciprocally for each specific situation. Role definition which gives security should be balanced with role development which gives variety and scope to the program. The whole range of teaching functions should be reexamined, to identify those which might be performed by nonprofessionals, such as monetorial, escorting, technical, clerical duties, and the more important functions directly related to instruction and to home-school relations. Teaching functions should be further examined to identify the more complex and highly professional functions which should be performed by a teacher alone, such as diagnosis of the learning needs of pupils, planning programs to meet these needs, and using other adults in the classroom in the execution of such programs.

II. **THERE MUST BE PRESERVICE TRAINING OF AIDES TO DEVELOP COMMUNICATIONS SKILLS AND OTHER CONCRETE SKILLS AS WELL AS BASIC UNDERSTANDING NEEDED DURING THEIR WORK EXPERIENCE, THUS BOLSTERING SELF-CONFIDENCE AND ENCOURAGING FURTHER EFFORT.**

The training should be differentiated to meet the special needs and characteristics of each group, considering such variables as the age of the trainees and the levels (early school, middle school years, prevocational years) at which they are being trained to work. There should be orientation for both the administrators and the professionals with whom the auxiliaries will be working, including an opportunity for the expression of any doubts or fears which may exist, and for consideration of the new and challenging leadership role of the professionals vis-a-vis the nonprofessionals. Institutes for administrators, teachers and aides might be conducted, where a sound approach to collaborative education might be developed. A practicum could be included in all preservice training--i.e. a field teaching experience where professionals and aides tryout and evaluate their team approach under the close supervision of the training staff. Training for supervisors should also be provided.

III. **THERE MUST BE A COMPREHENSIVE, CONTINUING, IN-DEPTH PROGRAM OF DEVELOPMENT AND SUPERVISION OF AIDES CLOSELY INTEGRATED WITH A LONG TERM PROGRAM OF STABLE, OPEN-ENDED EMPLOYMENT, SO THAT EACH LEVEL OF WORK RESPONSIBILITY WILL HAVE COMPARABLE TRAINING AVAILABLE.**

The mechanisms for process observations and feed-back should be developed with a spirit of openness of suggestion so that dynamic role concepts and relationships may emerge which are revelant to each specific situation.

IV. **THE COOPERATION OF A TWO-YEAR COMMUNITY COLLEGE OR POST-HIGH SCHOOL PROGRAM MUST BE SOUGHT IN THE DEVELOPMENT OF PROGRAMS FOR AIDES WHO WOULD MOVE INTO ROLES REQUIRING MORE KNOWLEDGE AND SKILLS THAN AT THE ENTRY LEVEL.**

Such program would be developed, for example, for library-aides who might have one or two years training in the librarian's role. Co-operation of colleges of teacher education and departments of education in institutions of higher learning might be likewise sought first, to provide educational opportunities for aides who desire to qualify for advancement to the professional level, and, secondly, to incorporate into their curricula the expanded role concept of the teacher in collaborative education.

V. **THE PROGRAM OF TEACHER AIDES MUST BE INCORPORATED INTO THE SCHOOL SYSTEMS AS AN INTEGRAL PART OF THE SCHOOL SYSTEM, NOT TREATED AS AN EXTRANEOUS ADJUNCT TO THE SYSTEM.**

The goals should be thought through carefully, stated clearly, and implemented by means of definite procedures. There should be cooperative planning among the school systems, local institutions of higher learning, and the indigenous leadership of the community served by the schools, both before the program has been inaugurated and after it has been institutionalized. Each step of the career ladder should be specified in terms of functions, salaries, increments, and role prerogatives from routine functions at the entry level to functions which are more responsible and more directly related to the learning-teaching process. Professional standards should be preserved, and all tasks performed by teacher aides should be supervised by a teacher. Encouragement of those who desire to train and qualify for advancement should be expressed in such a way that others who prefer to remain at the entry level feel no lack of job satisfaction, status, and recognition of the worth of their services--in other words, there should be opportunity but no compulsion to move up.

VI. **THERE SHOULD BE TIME SCHEDULED DURING THE SCHOOL DAY OR AFTER SCHOOL HOURS WITH EXTRA COMPENSATION FOR TEACHERS AND AIDES TO EVALUATE THEIR EXPERIENCES AND PLAN TOGETHER FOR THE COMING DAY.**

The quantity and quality of supervision should be reexamined in the light of the needs of this program. The personal needs and concerns of both professionals and aides should be dealt with in counseling sessions as aides adjust to new and sometimes threatening situations. Parents should be involved in the program both as aides and as recipients of the services. Contact should be established with professional groups. A continuum program of interpretation among educators to the broader community should be developed, with emphasis upon feed-back as well as imparting of information. An advisory committee of school administrators, supervisors, teachers, aides, parents, community leaders, and university consultants could be established to evaluate and improve the utilization of aides in each school where such program is undertaken.

## TEACHER AIDES

### Recommended Exemplars

### MODEL I: A Curriculum Designed to Train Individuals to Fill the Position of Teacher Aide

INTRODUCTION: Because the function of the teacher aide is still not established by common use, and because the function influences complex relationships in a traditional structure which is undergoing change, it is proposed that the curriculum be taught as a combination of classroom work under more than one appropriate instructor, a specified amount of intership under a master teacher, and a series of topical discussion sessions involving those concerned separately and in combination. Besides developing proficiency in certain basic educational skills, the course work should evolve a role behavior and function for the teacher-aide which can be perceived, accepted, and utilized by school districts. An understanding of role behavior and function is a useful tool in promoting an intelligent definition of classroom management.

The curriculum has been divided into six parts so as to to complete thirty to thirty six semester hours of course work. Each student should be required to display an acceptable level of proficiency in all areas; courses have been designed to accommodate a variety of abilities. It is recommended that tests be set up for area six as described below, so that those students already adept or who will shortly become so may be reassigned. Area five (see below) probably offers the most latitude in this respect.

CONTENT: General Areas

Introduction to educational process and procedures as provided in University of Nevada's survey course Education 101. (No breakdown given in this paper.)

Operation of machines used in classrooms and in other spaces of the educational plant.

Clerical operations connected with the classroom function.

Basic skills for a teacher's aide.

Preparation of instructional materials.

Skills in Human Relations

The possible duties of teacher aides be within the following areas:

I. Clerical Operations

   A. Correcting student prepared materials and reporting results to instructor. Note: The positive aspect of correct response must be emphasized to the student. However, the instructors must note unacceptable responses and use them to establish points for reteaching.

B. Taking and reporting attendance

C. Collecting and accounting for classroom inventory of materials and equipment

D. Collecting and accounting for miscellaneous monies entering and leaving the classroom

E. Correcting standardized tests and preparing summary reports

F. Making entries on student cumulative records

G. Abstracting items of information from records and files and tabulating them in prescribed classifications or order.

II. Preparation of instructional materials

A. Producing ditto masters

B. Producing overhead transparencies

C. Setting up bulletin board displays

III. Development of skills in human relations

A. Identifying and studying role behavior of instructor, aide, teaching staff, administration, and students.

B. Contrasting roles as they are performed by different individuals in the same office.

C. Differentiating and identifying typical roles portrayed by students in the classroom and in other school situations.

D. Assisting individuals to assess and identify optimum methods of performing the role of teacher-aide.

# TEAM TEACHING

## A Rationale

Team teaching is defined generally as an instructional organization involving teachers working together for all or a significant part of the instruction of a given group of students. In team teaching, two or more teachers share the decisions for the instructional objectives and for the programs necessary for the implementation of those objectives. Team teaching may be further defined as an arrangement whereby two or more teachers, with or without the assistance of teachers' aides, paraprofessionals, or nonprofessionals, cooperatively plan, instruct, and evaluate one or more class groups in appropriate instructional spaces and given lengths of time.

A team of teachers may assume responsibility for a fairly large number of students. The team may then, within the limitations of time and space, divide the students in their charge into groups of various sizes for any desirable length of time. For some purposes, it is possible and practical to bring the entire group together for demonstration; for other purposes, it may be desirable to divide into subgroups the size of which is determined by curricular aims, behavioral objectives, or teachers' tasks.

Team teaching in the early school years may be explained further in terms of objectives. The apparent objectives of team teaching fall into two catagories--child-centered objectives and utilization-oriented objectives.

Seven child-centered objectives, are most apparent in present practice: (1) Proper use of time and space and better utilization of teachers' talents permit teachers to help the individual child. (2) Children have the advantage of working with several teachers, as well as talented paraprofessionals, without the sacrifice of individual attention. (3) Students may be able to work longer with one teacher because of the flexibility in team teaching. This flexibility may be evidenced in the grouping--large group instruction, small group instruction, independent study, directed study. The flexibility is evidenced further in the utilization of varied staff talents. (4) Children who might otherwise have had only an inexperienced teacher, may have the advantage of some instruction with a highly skilled teacher, as well as the advantage of a variety of talents offered periodically by the paraprofessionals or subprofessionals which make up the team. (5) Sudents develop better attitudes toward learning and because of the independence and consideration generated in the team environment, may find others more acceptable; and they may be more highly motivated in their work. (6) The slow child is less often placed in the position of slowing down the group. The very bright and the very slow are generally less conspicuous because each child finds his own optimum working level. Each child, regardless of ability, is encouraged by successful experience at his own level. (7) Evaluation in team teaching becomes the combined judgment of several teachers, utilizing perhaps a number of oral or written instruments as well as observation; thereby, the process of pupil appraisal is improved.

Eleven utilization-oriented objectives are most apparent: (1) Better utilization of audiovisual aids. (2) Utilization of large group instruction, eliminating the tedium of repetition. (3) Improved utilization of small group instruction. (4) Improved opportunity for individual study. (5) Improved utilization of teachers' strengths. (6) Enriched use of library source materials. (7) Strengthening of the conceptual approach to learning. (8) More comprehensive evaluation through both oral and written instruments. (9) Some concentration on the problem finding approach. (10) Improved utilization of curricular designs aimed at meeting the needs of the child. (11) Utilization of enrichment study in depth as well as in breadth.

Obviously, the child-centered and the utilization centered objectives overlap. Present practice indicates that objectives are determined by teams. The argument that any one or all of these objectives may also be furthered in a more traditional setting is not pertinent here, since the intent here is not to define or to compare team with present practices.

The defensible motive for team teaching is the improvement, immediate or ultimate, or of instruction. The obvious key to a successful program, lies in the most effective use of teaching time, teaching space, teaching media, and most particularly teaching talents.

Team teaching as presently employed assumes some observable structure. Certain basic factors are relevant to all team teaching. Cooperative planning, instruction, and evaluation are necessary. Student grouping other than the "one-to-thirty" didactic approach used in many traditional classrooms makes way for flexible scheduling. Use of teacher aides is common. Individual talents of teachers are recognized and utilized. Use of space and media appropriate to the purpose and content of instruction are considered.

In present practice, a hierarchical team arrangement is prevalent to some extent. A common delineation of roles and responsibilities follows:

Team Leader: A mature, experienced teacher of unusual talent and extensive training is elected, appointed, or hired to serve as the leader of a teaching team; the team leader's major responsibilities are teaching and coordinating the team's efforts.

Master Teacher: An experienced teacher who possesses considerable advanced study, unusual knowledge, and great skill in teaching serves as master teaching.

Team Teacher: A regular teacher who serves as a member of a teaching team.

Subject Matter Specialist: Teachers or consultants may be called upon if regular members do not have enough expertise.

Auxiliary Teacher: A regular staff member such as the librarian, reading specialist, psychologist, or a teacher of music, art, physical education, etc., can be called upon as the need arises.

Teacher Aide: A subprofessional takes over many of the routine duties of a classroom and may be assigned certain simple tutoring tasks with children.

Clerical Aide: A clerical aide handles office clerical tasks but is also expected to respond directly to team requests and needs for orders, supplies and typing tasks.

Intern Teacher: A beginning teacher has regular teaching assignments but works under supervision.

Student Teacher: A college student spends time observing and assisting as well as doing directed teaching.

School Community Representative: A person from the community works closely with the parents. This function is especially valuable in neighborhoods where there is serious deprivation.

Resource Persons: People with special knowledge or expertise, such as other professionals, policemen, firemen, industrial specialists, and the like may be brought in for specific purposes.

Parent Volunteers: Parents are brought in part-time to assist in simple, clerical tasks, field trip supervision, and other routine assignments.

From this listing, it is apparent that a line of command or responsibility is established in the hierarchical team arrangement. However, it should be pointed out that not all of the described roles are necessarily included in this arrangement. For example, the team teacher and the master teacher may be one and the same. Not all of the paraprofessionals or subprofessionals, may be included in the team. The point here is that definite responsibilities are assigned and generally remain constant throughout a school year. Research shows that this approach is in practice nationally, and is advocated by a number of authorities. It is the most likely to succeed because the line of authority is clearly established. Nevada schools considering a team approach are carefully examining the hierarchical concept.

A second organizational pattern for team teaching is apparent in the format of the State Master Plan. This pattern or structure for teaming is referred to in practice as a cooperative or collegial plan, wherein roles and responsibilities are not so clearly designated as in the hierarchical structure. In this structure a role and responsibilities revolve as the behavioral, curricular or teaching objectives change. Authority is equally distributed to the colleagues or team members. In this structure the teacher must assume a new outlook on course content, the methodology he might employ, on the roles of supervisors and administrators, the responsibilities and attitudes of students and parents. This new outlook will require the team member, if he is to experience success and, if the team oriented curricular program is to experience success, to accept new view-points. The team teacher may at times be a leader in the school situation. He will as many times, conversely, be a follower. The team teacher can learn a great deal from others--fellow teachers, administrators, and students. Students, with proper motivation toward self-improvement and inquiry, can teach themselves without the direst instruction of the teacher. Students require opportunities for self-development, commensurate with their ability to assume these responsibilities. It is necessary to plan, to prepare, to evaluate subject matter in terms of large groups, small groups, and individual study considerations and to determine the best instructional environment for mastery or achievement.

The successful team teacher must view change in a favorable light. The age of the teacher is not as important as his curiosity. The collegial approach is usually greeted with more enthusiasm when a team concept is being considered; and it is more frequently initiated, perhaps because there is less implication of giving over of the individual's authority. There is insufficient evidence in present practice to determine whether the hierarchical or the collegial approach is the more successful.

Team structure related to a portion of the curriculum and/or the school day is practiced. In a single-discipline team, the team will assume responsibility for decision-making in the instruction of a group of students, usually

#16

a relatively large group of students for a single subject. This approach may have some identification with departmentalization. The difference lies in the cooperative focus.

Other common examples in practice would be team teaching for science, team teaching for language arts, team teaching for arithmetic, etc. An interdisciplinary team structure is also presently practiced. This sort of team will generally assume responsibility for a longer block of time, and the behavioral and curricular aims will encompass more than a single discipline. The third approach to structure in this sequence is the school within a school team. The team in this practice assumes responsibility for all or a major portion of the instructional program. The block of time utilized here may encompass the entire school day. Exceptions may be specialized instruction in art, music, or physical education. Exceptions are naturally dependent on the individual competencies of team members.

Present practice indicates that programs often move sequentially from the single discipline to the interdisciplinary to the school within a school. No time factor can be tied to this evolvement. This is not to say that the single discipline team will necessarily change to an interdisciplinary team or that an interdisciplinary will move to a school within a school. It does imply that present practice indicates that the third evolves from the second and the second from the first. At the present time in Nevada, the single discipline approach is most common.

A single discipline team in English for example may utilize the talents of a teacher of linguistics, a teacher of literature, a teacher of composition. These specialists may be assisted by an aide who parepares mimeographed materials, assists in grading objective evaluative documents, arrange for and operates audiovisual equipment. A single discipline social studies team may utilize a teacher for a particular period in history and a teacher to instruct in current affairs with some assistance from an aide.

It is apparent that there are numerous variants of team organization and staff cooperation. Some organizational patterns are really no more than modifications of the old patterns of literal self-containment (generalist or specialist) while others are more valid examples of team teaching, ranging from loose federations all the way to formal hierarchical team structure. Both the semi-structure and the more formal approach have some tie with departmentalization.

The high schools in Nevada operate generally on a typical "cellular concept" of secondary instruction, wherein teachers meet briefly with 25 to 30 students within a daily schedule. Little opportunity is provided for varied group size or individual attention. There are a few notable exceptions to this generalization.

It is perhaps appropriate to delineate what team teaching is not, in order to being into focus the positive rationale. What team teaching is not is best described by J. Lloyd Trump and Delmas F. Miller in Secondary School Curriculum Improvement: "Team teaching does not mean, for example, a procedure whereby three teachers and 90 students come together occasionally for a presentation to the total group and then return to their respective class of 30. This simple variation of class size is not likely to produce any more gains for teachers or pupils than the hundreds of class size studies conducted in this country and in others for many years have demonstrated in their reports.

#17

Team teaching does not mean rearranging standard-sized classes of 30 into independent study groups and classes of 15 or 20 without changing what teachers and students do. What teachers today call "class discussion" is inappropriate for large or small groups. Similarly, a small group session is largely wasted if teachers continue to conduct oral quizzes or lecture. And productive independent study involves more for students than conventional homework or merely reading books and filling in blanks.

Team teaching is not limited to either secondary or elementary age students. Nor is it confined to the academically able or the highly motivated pupils. It is not a system that is appropriate only for some subjects, but rather works well in all of them since the principles of teaching and learning are similar.

Team teaching is not, in itself, an effort to solve the teacher shortage problem except as it identifies more stimulating and professional roles. It does not change teacher-pupil ratios merely for the sake of juggling members.

Above all, team teaching is not a fad to be engaged in simply because others are doing it, or a temporary expedient to solve a building space problem or financial difficulties because a referendum did not pass. Team teaching is not a superficial arrangement for educators who have not thought deeply about how to improve educational quality. The foregoing negotiations emphasize the essential need to plan team teaching carefully. It can and should be a basic, broadscope educational reorganization to develop improved conditions for teaching and learning that are necessary for achieving better the major educational goals. If it is less than that, those who plan and direct the program should take another look and try again. Limited concepts of team teaching will produce limited gains.

Compromises between ideal programs and what is realistically practical may be made, but when those compromises are approved there should be an accompanying plan for reaching the necessary goals over a period of years.

# TEAM TEACHING

## Emerging Mandates

I. TEAM TEACHING, IN ITS VARIOUS PATTERNS AND PURPOSES, MUST BE CAREFULLY APPRAISED BY NEVADA SCHOOLS TO DETERMINE ITS VALIDITY FOR IMPROVEMENT OF INSTRUCTION.

Team teaching is an organizational device which encompasses all aspects of the teaching-learning experience. When properly planned and executed, the team pattern necessitates an in-depth appraisal of a number of areas of concern. This appraisal will include the role of the teacher, the school schedule, class size, curriculum development, staff morale, facilities design, and staffing patterns. These are areas for appraisal at all age levels (early school, middle years, pre-vocational, career development years) wherein team teaching has emerged as a present practice.

II. THE OF RELATIONSHIPS AFFECTED BY THE TEAM-APPROACH MUST BE CAREFULLY SCRUTINIZED.

Instructional programs which anticipate or are currently using team teaching, should give special attention, consideration, and appraisal to personnel relationships. Such relationships include teacher-teacher relationships, student-student relationships, teacher-student reelationships, student-teacher relationships. Assessment of these relationships is necessary because of the new focus placed on the role and responsibilities of the personnel in the team. An objective and searching evaluation of school-community relations, salary structure, and accreditation procedures is likewise required.

III. CAREFUL LONG-RANGE PLANNING MUST BE INITIATED IF THE CHANGES REQUIRED FOR TEAM TEACHING ARE TO BE EFFECTED SMOOTHLY.

Since team teaching as presently practiced has involved change and since moving into a team teaching program will necessitate change, a number of steps will allow change without some of the normal emotional action and reaction often experienced when the status quo is upset.

IV. THE ROLE OF CERTAIN INDIVIDUALS WHO MAY NOT AT ALL TIMES BE A PART OF THE TEAM BUT WHOSE SPECIALTIES WOULD BE SIGNIFICANT IN PLANNING AND PREPARATION SHOULD BE ASSESSED.

These individuals include curriculum specialists, guidance specialists, personnel with special skills in evaluative materials and techniques, audiovisual aids specialists.

V. PROVISION IN FACILITIES MUST BE MADE FOR VARIOUS GROUPINGS.

Team teaching requires space; space must be provided for instructional groups (large groups, small groups, independent study groups) for team activities and for the team members' preparation. Large group instruction implies one or more team members instructing a group larger than normal class size (perhaps 75 to 150) assembled in a single area large enough to accommodate them comfortably. Vision and acoustics are important. Desirable, but not essential features of a large group center, are tiered seating, audiovisual facilities, a fixed screen, stage and rheostat lighting control. Seminar rooms for small group enterprise should be readily equipped with several tables and folding chairs. Study carrels or small areas should be available where one or two students may work independently and privately. Carrels can often be prepared in open spaces through the use of screens. A room where team members may prepare lessons and materials serves as a team resource center. Necessary equipment for the resource center includes files, bookshelves, ample storage equipment, tape recorders, projectors, transparency making equipment, and other instructional aids.

## VI. EXISTING SCHOOLS SHOULD BE CAREFULLY STUDIED TO DETERMINE WHETHER OR NOT THEY CAN PROVIDE SOME OF THE SPACE REQUIREMENTS NAMED ABOVE.

Examination should be made of present large-area fixed facilities, present standard classroom facilities, and present facilities utilized for noninstructional purposes. Analysis of facilities should be conducted from three points of view:

1. Is the area being put to most effective use?
2. If not, what are the conversion possibilities?
3. What are the costs involved?

## VII. STAFFING PATTERNS WHICH INCORPORATE SOME INVOLVEMENT OF NONPROFESSIONAL ASSISTANCE MUST BE CONSIDERED.

As pointed out, some team teaching projects involve rather extensive utilization of teacher and clerical aides. Financial reasons perhaps dictate little or no use of aides. Team teaching cannot be predicated on the basis that aides are essential. However, those teams which utilized aides seem to be making more progress in improving instruction. This is significant if we accept the improvement of instruction as the primary motive for team teaching.

# TEAM TEACHING

## Recommended Exemplars - Introduction

### MODEL I: A Single Discipline Team

The following model is presently being utilized in the English department at Earl Wooster Senior High School in Reno. The program utilizes a collegial team. The program was developed as part of the WASP Project in the Washoe County schools. The program is the result of the collective thinking of eight teachers, five of whom were directly involved in the program and two additional members who were chairmen of the English departments of the local high schools. Visiting consultants included the junior and senior high school curriculum coordinator, the administrative assistant in charge of curriculum, and the director of program development, the principal of Earl Wooster Senior High School, and the English consultant for the State Department of Education.

OBJECTIVES: This individually scheduled modulated English program for sophomores is designed to accommodate individual needs of students and to utilize teacher strengths and cooperative thinking. Within this program, the student profits from both large group instruction and seminar activities. In the large group each student gains from hearing authorities speak and from participation in a democratic unit. In the seminar, each student is offered the opportunity to progress at his own rate of achievement in a group smaller than traditional scheduling permits.

CONTENT: Subject areas of literature, writing, and language are interrelated; that is, reading assignments may serve as a basis for writing, and writing assignments as a basis for language study. From student performance in these areas, individual needs will be determined for assignment and instruction during achievement week (scheduled at the end of each large unit of study). Each achievement week will include laboratory-type activities in spelling, vocabularly, reading comprehension, mechanics and sentence structure, logic, study habits and makeup instruction from advanced student-tutors and individual student-teacher conferences.

METHODOLOGY: The program is structured to accommodate 150 students, chosen at random, under the instruction of five teachers assisted by one teacher's aide supervised by the English department chairman. Grouping and regrouping follows one of several patterns. At the termination of each unit, students may be regrouped on the basis of their indicated needs. In some instances, the students are permitted to follow special reading interests; in other cases the student may choose his own group, based upon self-evaluation. The student who can profit from individual research will be allowed to pursue a special project. Throughout the school year, diagnostic tests will serve as a basis of instructional need.

Unique features of this program hinge upon its great flexibility which allows guest speakers and variable blocks of time (which will permit an extension of time for teacher or student to complete a lesson) within the structure of a traditionally scheduled program. Although planning is done for the entire year, a fixed schedule is restricted to a six-weeks period to permit changes and revision in the ensuing six-weeks period; further flexibility occurs within the six-weeks program because students, working at their own pace, may complete a given unit early and may be permitted to initiate new phases of the study.

A second unique feature of this program is the utilization of a traditional physical plant. First, the little theater, or similar facility is made available to this group for large group orientation, large group lectures, guest speakers, films, audiovisual presentations, and testing. Second, provision is made for the use of the cafeteria which provides writing tables and space for theme writing, tests, buzz sessions, supervised individual study. Third, individual classrooms are used for small group laboratory activities and for small group instruction. Finally, the English department's office-complex provides for makeup and student-teacher conferences.

The teaching team has the services of a half-day teaching assistant or aide. In addition to clerical duties the aide also assists with the student control under indirect teacher supervision; for example, student may be sent for supervised study or individual research to the complex or library for special assignments under the supervision of the aide.

An additional strength of this program is the assignment of all the accelerated students to the teacher who presents the unit because this teacher had assembled the resources of the total group and is better qualified to enrich this unit.

## MODEL II: Ruby S. Thomas Elementary School, Clark County

OBJECTIVES: At the Ruby S. Thomas Elementary School in Clark County a true experimental approach to individualizing instruction has been developed. A school building, not divided into "egg-crate" self-contained units has created an atmosphere which encourages teachers and pupils alike to develop their full potentials.

CONTENT: The instructional program focuses on pupil problems rather than pupil grade levels. Such a focus is complex and demands a complex program to carry it out.

METHODOLOGY: At Ruby S. Thomas, four teachers are assigned to each large room to team teach approximately 120 pupils of comparable age. Although pupils in each of the large centers belong to a designated grade (one to six) these classes are essentially ungraded since the grade designation is not relevant to the level of academic achievement. There is a focus on an instructional package geared to the child's capacities and needs.

Pupils in the large centers are arranged in four groups; a large "pupil pool," and three smaller instructional groups.

The size and composition of each smaller group is fluid. Working within variable time blocks, team members draw from the larger pool on the basis of determined pupil needs.

Homegeneity is accomplished in the groups through the varied criteria employed to create the groups. The criteria may include one or several of the following: Subject area, intelligence level, skill in a given subject area, time requirements to impart a given amount of subject matter to a group or individual pupil and teacher compatability, sex, personality, or other general characteristics of personal makeup. These criteria determine the length of the flexible time increments that represent the instruction schedule.

Team teaching takes on new dimensions in the large center atmosphere.

Planning and cooperation are given new focus. The team composition is essentailly collegial as the teacher most qualified in each curricular area assumes leadership for that area, assuming a membership role; meanwhile another's competencies place her in the leader's position.

Planning time at Ruby S. Thomas is provided during the first period of each day and supplemented by conferences during the day as needed. The literary materials center is an integral part of the plant and the librarian is an integral part of the teams. The success of the program at Ruby S. Thomas is generally attributed to careful prior planning and careful planning on a continuous basis.

## MODEL III: Social Studies

OBJECTIVES: In an effort to use to the utmost the skills and talents of teachers and fully meet the educational needs of students, Sparks Junior High School has conducted a program of team teaching in social studies.

CONTENT: The regular curriculum for seventh grade social studies was adapted to this team teaching program. The program including units in history, geography, and current events has been designed so that the students may better understand the world in which they live.

METHODOLOGY: Planning time for this team teaching program is provided during the summer. The team is made up of two staff teachers, one teacher's aide, and a student teacher from the University of Nevada. Each class ranges from 90-100 students and is divided into eight groups which rotate activities according to the following outline:

A. Large Groups

1. Approximately 96 students
2. Used for presentations
    a. of new materials
    b. by special guests
    c. of films

B. Medium Groups

1. Approximately 48 students
2. Used for special work
    a. directed study
    b. supervised study

C. Average Groups

1. Approximately 24 students
2. Used for unit work
    a. SRA kits
    b. map study

D. Small Groups

1. Approximately 12 students
2. Used for special projects
    a. group discussions
    b. library work
    c. research project work

In order to accommodate the large group, an unused shop was converted to an attractive classroom. Other classrooms and the library are used for smaller group meetings. The project is coordinated by the principal under the Washoe Awareness Study Project and is given further direction by the program development director of the county administrative staff.

## MODEL IV: For One Subject in the Middle School Years

OBJECTIVES: An exemplar of a team project in a single discipline for the middle years as defined by Frank Dufay in "A Team Project" as reported in *Upgrading the Elementary School* is included here to indicate the *planning* and *organization* typical of successful programs.

CONTENT: As an example of a team project, let us assume that the team has a specific unit for team action. The first act of the team would be the planning of a unit. In planning the team would

1. Determine the content of the unit
2. Define the objectives of the unit
3. Plan a tentative time schedule
4. Decide on the kinds of material to be used
5. Identify the personnel needed (resource people)
6. Decide on the kinds of groupings to be employed.

This phase of work would undoubtedly take a number of meetings, even before the first actual instruction.

Throughout the planning period the teacher would gear their plans to specific pupil needs. Questions would be raised; the answers given would determine the plans:

1. To what parts of the content should all pupils be exposed?
2. Which pupils are able to work independently effectively?
3. What are the reading materials best suited to the slow-learner?
4. What relevant audiovisual materials are available?
5. Which pupils need special help in developing the various study skills, i.e., note taking, outlining, extracting information, etc.?
6. What resource people can be called upon for their special talents?

METHODOLOGY: On the basis of the teachers' knowledge of pupils' individual abilities and needs, the team could determine those aspects of the lesson to which all pupils could profitably be exposed (large group), where small or individual lessons would be required, where independent activity was desirable, etc. The team could then determine what kind of groupings and regrouping they wanted in each case. The desired kind of interaction between teachers, pupils, and materials would determine the specific instructional techniques, for example:

1. Lecture
2. Debate
3. Oral recitation
4. Panel discussion
5. Oral drill
6. Workbook activity
7. Use of films, tapes, etc.
8. Independent reading
9. Discussion, small group
10. Committee work
11. Library research
12. Written tests

Prior to the initiation of the unit, the team would determine the desirability of formal testing before and after the unit as a means of measuring the effectiveness of the completed unit. In many instances, a less formal procedure might be satisfactory.

One of the most important characteristics of a good team teaching program is the large degree of interaction among participating team members. Thus, it is true that each lesson is subjected to intensive analysis by members of the team.

They constantly review what they have done, discuss the shortcomings and the virtues of each step taken, and probably make more corrections in succeeding efforts than would be true under the closed-door policy. A Team Project by Frank Dufay in Ungrading the Elementary School

MODEL V: Facilities for Team Teaching

INTRODUCTION: Cyril S. Sargeant of Education Facilities Laboratories in Team Teaching edited by Judson T. Shaplin and Henry F. Olds, Jr. describes "characteristics of team teaching schools." By describing characteristics, he provides a model for the facilities mandated by team teaching.

CHARACTERISTICS: Team teaching schools appear to have to satisfy four essential requirements if they are to function effectively.

First, they must accommodate groups of various sizes, for team teaching requires a reordering of teaching personnel relationships and concomitantly both makes possible and assumes a reordering of the basic instructional groups. The standard rows of 800 or 900 square foot classrooms no longer can accommodate the requirements of teachers and pupils. Wherever one tries to bring several classes together, or to break a class or series of classes into smaller units, the traditional classroom stands in the way. Designed for 25 or 30 pupils and one teacher, it simply does not fit the continually changing requirements of flexible grouping. Depending on the particular organization and size of the team teaching project, spaces are needed to accommodate anywhere from two or three pupils studying together or separately, to 100 or 200 pupils, participating in a large group presentation.

Second, not only may the groups be of varying size, but they may also change continuously. Therefore, a team teaching school must be a "fluid" school. John Lyon Reid, a school architect, expressed it this way: "Education is a creative, thoughtful method of learning and a fluid activity. A fluid might be said to take the shape of its container. If that is true, I think we might also say that the container should change its shape when required." In team teaching schools, groups may shift throughout the school day at unscheduled--at least by the traditional bell--times. The participants of groups also change. The school should make as nearly effortless as possible the flow of students to spaces of various sizes with a minimum of commotion, confusion, and conflict.

Third, a team teaching school should also provide a place for teachers to work, both in small groups and in private. The teacher is no longer operating alone; his work is part of a larger scheme and his responsibilities shift from day-to-day. The demands placed on his performance require planning, study, and conferences with other members of his team. Moreover, he needs materials, resources, and equipment which are apt to be more varied than those to which he has been accustomed. His classroom can no longer serve as his office. It is no longer "his." His planning is continuous whenever he has no instructional or observational duties; he is no longer limited to a traditional free period a day in his own room. Thus, the teacher and a team needs space to work, to plan, and to organize materials which greater specialization and released teaching time both require and enable him to prepare.

Fourth, team teaching schools tend also to alter the demands on pupils. More and more the pupils may be on their own, doing independent work, proceeding at their own best pace. Their homeroom may no longer be their base, their group no longer the same 25 or 30 pupils. And so, increasingly, team teaching demands schools which provides spaces for study, spaces where students can work on a paper or a laboratory project and where they can leave their work until they have finished their research. Libraries become busier, with space for individual projects; and individual carrels placed in libraries, or in nooks and crannies, or along the corridor wall of varying width, are emerging as necessary spaces.

## MODEL VI: Facilities Design

OBJECTIVES: In the Weber County School District, Ogden, Utah, some of the most modern, well designed schools in the United States have been developed. The Weber schools list the following as standards for their building program:

1. Educational planning is the basis for building planning.
2. Educational planning results in teacher-student activities that must have spaces.
3. Spaces must be flexible to meet the needs of changing teaching methods.
4. Facilities are a means to better education, as such they must promote, not limit, an educational program.
5. Spaces must be provided for a variety of grouping with emphasis leading to individualized learning.
6. The design is to emphasize aesthetics, comfort, and safety.
7. Emphasis is placed on using building materials which provide strength, durability, and low maintenance costs, all reasonably priced.

IMPLEMENTATION: Classrooms are located in elementary, junior and senior high schools around a central materials center. Flexibility is provided by either folding walls or by simple eliminating the interior walls. A special thermal, acoustical, and visual treatment has been provided to create a condition which enhances learning while maintaining maximum warmth, beauty, and comfort. When possible, low maintenance materials have been provided; brick masonry walls, steel walls, steel doors, vinyl covered pin board walls, demountable steel walls, and plastic faced furniture.

In summary, the planning for schools in Weber is divided in two major parts:

1. The teacher, administrative staff, school board, and school patrons solve the problem of the educational program. It is their function to design the educational program and provide the financial support.

2. It is the role of the architect to solve problems of building function, engineering and aesthetics to fit the educational program.

## LIBRARY SERVICES*

### An Introduction

"The word library is rich in tradition, meaning and usage, and for at least sixty-five years, if not longer, the definition of school library has reflected this heritage. A school library has always been, and will continue to be, flexible in its program of services and in the scope of the materials of communication contained in its collections, as it meets the changing needs of the school that it serves. A school library does not have to change its name to embrace new materials and new uses of all types of materials any more than a school has to call itself by some other name to indicate that it is a continually growing social institution. Services, not words, portray the image of the school library. The school library is a materials center, an instructional materials center, an instructional resource center, or any of the equivalent terms now springing into existence. School library has been used in these connotations--but in a richer sense as well. For the school library, through books, films, recordings, and other materials goes beyond the requirements of the instructional program, and unfolds for the many private quests of children and young people the imagination of mankind."[1]

*Libraries are repositories of knowledge.* The primary function of schools is to transmit knowledge. Yet, some Nevada students still go to schools which are appallingly inadequate in library facilities. This is a contradiction which should be a matter of great concern. This is especailly true at a time when educators are stressing the value of independent study. Unless the physical facilities for independent study are provided, the assumption that students will pursue knowledge independently in any great numbers is illusory.

---

[1] The American Association of School Librarians. Standards For School Library Programs. XXX 1960.

*The major reference for the preparation of this section was The School Library, a Report from Educational Facilities Laboratories.

## LIBRARY SERVICES

### Present Practices

The past five years have seen considerable development in Nevada's school library programs. Major factors contributing to this development are:

1. Suggested Aims for School Library Development in Nevada, 1963. This is a publication developed by a committee of Nevada educators and published by the Nevada State Department of Education. It contains suggestions which have been accepted by most school districts as minimum standards for planning purposes. This document as been replaced by Standards For School Libraries in Nevada--1968.

2. The State Board of Education's ruling which allowed one library apportionment (the same as one teacher apportionment) for every 16 teachers on a district staff, did more to improve library personnel services than any other single action. This caused the number of certified librarians in the state to more than double. The result has been improved library programs throughout the state.

   "A competent effective library staff is the keynote to good school library service. No matter how extensive the collections, how large the budget, or how spacious the quarters, a school library cannot function fully as an educational house in the school if the size of the library staff is inadequate or if the librarians are lacking in the special qualifications their work requires.[2]

3. Title II of the Elementary and Secondary Education Act of 1965 has provided $586,161.39 in resources for Nevada School Library Programs.

4. Change--radical, rapid, and often beyond our comprehension has been the greatest factor. Recognition on the part of teachers, parents, and administrators that education is changing and that methods, goals and schoolhouses are in transformation has caused the library to be accepted as a vital learning facility--the hub of the instructional program. The emphasis on self-instruction and individual inquiry means that students must be provided with the facilities for doing so.

In spite of this positive development, barriers to progress still exist in some school districts. What are some of these barriers?

1. Attitudes of School Administrators--Librarians often think of administrators as men who have been trained in methods with little or no training in liberal arts. They assume that they are not book-

---

[2] American Association of School Librarians. Standards For School Library Programs, Chicago, American Library Association, 1960.

oriented, and therefore, are not interested in libraries. Librarians sometimes feel that administrators impose restrictions on the library that prevent librarians from contributing to the instructional program as they feel they should.

2. A philosophy of education that provides little motivation or time for student use of the library.
3. A study hall concept of the library which discourages affection for reading, and turns the library into a forbidding place rather than a living room. Most often the library is too formal, too institutionalized, devoid of pleasant furniture, and lacking in imaginative displays and services.
4. A physical setting that is not only isolated from the main stream of student traffic, but is also inadequate in size.
5. A collection of books, periodicals, newspapers, and audio-visual materials so small that it stifles potential interests and meets only the needs of the poorest and most limited students in the school.
6. A separation of book and audio-visual services.
7. A library that fails to take into account the fact that the technology of communication is changing rapidly.
8. A lack of understanding by the administration that competent librarians should be delegated the responsibility and authority to administer the library and work with the teaching staff as materials consultants.
9. A concept of staff size that limits the librarians' energies and time to the routine tasks, giving them no opportunity to play an intimate role in the instructional program.

## A Note on Media

A major area many times misunderstood is the relationship of content to carriers of knowledge. The question often heard is: "Should the library contain audio-visual materials and services, or should these be contained in a separate 'instructional services center with the library limited to books'?"

The answer to the question depends upon whether the view of what a library is becomes static or dynamic. Carriers of knowledge have ranged from clay tablets to pieces of wood, papyrus, scrolls, handwritten books, machine-printed books, phonograph records, transparent films, tapes, wires, electronic impulses and so on. Knowledge is recorded and shared in many ways.

Today there is controversy over the issues of audio-visual aids and the use of teaching machines. One hears that "one picture is worth a thousand words"; that books are old-fashioned and films are not; that a book can't teach because it isn't "programmed". It is said that librarians are against audio-visual aids and audio-visual experts are against books. School administrators are reputed to be willing to spend thousands of dollars for audio-visual materials and only tens of dollars for literacy material.

# LIBRARY SERVICES

## Emerging Mandates

I. **OF IMMEDIATE CONCERN TO NEVADA EDUCATORS SHOULD BE THE CREATION OF SCHOOL LIBRARIES THAT GIVE VIGOROUS SUPPORT TO TEACHING AND LEARNING, AND PROVIDE MAXIMUM ACCESS TO SCHOLARSHIP.**

Nevada still has school libraries which are located in small rooms with from a few hundred to a few thousand books around the walls. (Often too few.) Seats for a few readers are presided over by a librarian whose main task is to keep order over a reluctant group of students who are there, not because they want to be, but because they have been sent there to study their textbooks.

II. **SCHOOLS MUST ADOPT A DYNAMIC CONCEPT OF THE LIBRARY AS A PLACE WHICH INCLUDES ALL KINDS OF CARRIERS OF KNOWLEDGE.**

The critical question then will not be, "Is television or film better than the book?" but rather, "Which carrier of knowledge is best to accomplish the task at hand?"

III. **AS THE LIST OF MATERIALS (CARRIERS) GROWS, THE LIBRARY STAFF MUST BECOME A BALANCED TEAM OF SPECIALISTS TRAINED TO MAKE OPTIMUM USE OF ALL THE SCHOOLS' INFORMATIONAL RESOURCES.**

Largely because of the hardware needed to recover information from them, tapes, motion pictures, filmstrips, and recordings, present problems of technology and selection, and often are program development, that are not posed by the printed word. During the early stages of accumulation of audio-visual media and materials, the librarian is competent to manage them and to guide students and teachers in their proper use. But as the program and collection grow, the librarian is not likely to have the time or training to handle the specialized chores that accompany extensive use, nor should she be expected to. An audio-visual expert or "media specialist", as they are called, will be needed to fill the vacuum. If, for example, the library should have a system for the electronic transmission of information from a central source, it could not manage without the services of the media specialist whose job it would be to design the components of the system and supervise the production of materials to be used in it.

IV. **LIBRARY RESOURCES IN ANY SCHOOL MUST BE SUFFICIENT TO ENABLE THE TEACHERS TO ASSEMBLE THE AMOUNT OF MATERIAL THEY WILL NEED, AND SO STUDENTS CAN FIND MATERIAL NEEDED TO HELP THEM GAIN MASTERY OF SCHOOL SUBJECTS. ADDITIONAL MATERIALS MUST BE AVAILABLE WHICH ALLOW STUDENTS TO PURSUE SPECIAL PROBLEMS ON THEIR OWN INITIATIVE.**

Current standards make correlations between size of enrollment and the number of books and the other instructional materials a school library should have. The size of the enrollment, however, if student needs are the first consideration, is irrelevant. If students are going to do any kind of serious independent work, access to 50,000 titles is recommended as basic. This number includes titles of varied carriers of information such as film, tapes, records and books.

No Nevada schools have collections of this size today. Few districts are prepared to think in these terms. However, there is no reason to temper the recommendation because it is in advance of present practices.

Nevada's State Plan for Cooperative Library Services sets forth methods for providing the needed access to carriers of knowledge. A statewide network of library systems including school, public, university and special libraries is recommended. Some plan for contracting and sharing of services is recommended as the means of providing more efficient library service to all of Nevada's citizens. Examples of plans for cooperative sharing of materials include those currently in use as follows:

1. The Hagerman High School, Hagerman, Idaho, has contracted to share services with the Ontario Public Library in Ontario, Oregon.

2. Centralized services, or districtwide sharing of resources may be observed in the Montgomery County School System, Baltimore, Maryland.

3. A cooperative-systems approach has been developed in Louisville, Kentucky, where the Louisville Public Library, University of Louisville and the Louisville public schools are electronically connected for sharing of resources.

# LIBRARY SERVICES

## Recommended Exemplars

Several library programs now operative in Nevada public schools might serve as models for other schools of comparable size.

### Model I: Southern Nevada Vocational-Technical School

Utilization of new technology for improvement of library services may be observed at the Southern Nevada Vocational-Technical School. Dial information retrieval, using magnetic tapes, is one facet of the program.

The collection is processed for computer storage. This provides for fast and efficient circulation control as well as ease in obtaining print-outs of subject matter bibliographies of materials.

### Model II: Yerington Elementary School

The Yerington Elementary School library program demonstrates effective utilization of the various "carriers" of knowledge. Of special merit is the system of circulating filmstrips and projectors for home use by students.

### Model III: Pershing County High School

The Pershing County High School Library demonstrates how a "traditional" library program can be converted into one which contains many "carriers" of knowledge.

### Model IV: Elko County

The Elko County School library system, one high school, three junior-senior high schools and 17 elementary schools (10 of these are rural elementary schools) in an area of 17,127 square miles, exemplifies outstanding effort to provide total library services to children.

#32

# EDUCATIONAL TELEVISION

## Present Practices

In Nevada, educational television is in its infancy. With the exception of the recently activated television station in Las Vegas, KLUX (Channel 10), licensed to Clark County School District, the Ormsby County Close Circuit Program, and the experimental use of portable video tape recorders by some of the schools in sixteen of seventeen counties, there is no educational television in the State of Nevada. Television instruction is primarily accomplished with teletrainer units, however, is quite sporadic and uncoordinated, because there are too few teletrainers available to individual schools and teachers. The teletrainers that are now in use in schools were intended to be used on an experimental basis, but have been utilized to a very limited degree. The teachers were ill-prepared for the mechanical operation of the equipment and were not able to experiment long enough to develop their ideas for effective uses within the classroom.

The instructional television tapes available to school districts are very limited in number and scope. The use of these tapes has been uncoordinated and has served for the most part to acquaint a few teachers with closed circuit television as an instructional aid much like other forms of supplementary audiovisual equipment and media. Commercial stations will occasionally carry a program or series of instructional programs, but little structured instructional programming is presented. The coverage of these programs has not been evaluated to determine the number of viewers or the influences the material has had on the student's behavior. There is no organized schedule of instructional programs for educational television in any area of Nevada.

In June, 1968, the Nevada Educational Communications Commission submitted an evaluational survey report on classroom utilization of instructional video tapes and educational uses of the teletrainer from which the responses of teachers and principals throughout the state were recorded. It is clear, from this survey, that instructional video tapes are effective learning materials which teachers want to utilize, but that operational frustration and lack of equipment provide obstacles to their use. The responses of teachers and principals have also made it clear that they consider television a valuable asset which should be made more readily available to both students and teachers. A strong recommendation of teachers and principals throughout the state is for more equipment, more training in the use of television, and more taped material to be used with and through television. Despite problems, the teletrainer has definitely proven itself in Nevada. Some of the experimental activities have included the use of the teletrainer for such in-service education as the Far West Regional Laboratories' minicourse, designed to improve teacher effectiveness in the classroom, video tape recordings of classroom mathematics programs for university mathematics courses, and an Initial Teaching Alphabet demonstration. Teletrainers have also been used for community and public relations projects such as the explanation of county rural school programs, and of the modern mathematics program to parents.

Self-evaluation both by pupils and teachers is another very important function of video tape. Such use by teachers indicates a course which might be followed by those persons responsible for in-service education throughout the state. It is also apparent that television in the hands of the creative teacher is a stimulating force for the improvement of both environment and performance. These and other uses listed in the questionnaire response indicates that there are many creative teachers in Nevada who are looking for ways to reach their students more effectively.

During the period of experimentation with the teletrainers, teachers were free to work individually to try their own ideas for the use of the teletrainers in their teaching activities. This experimentation was completely permissive without structure or control either by the State Department or local county offices. Through this permissive, unstructured experimentation with creative uses of television, clear directions for a more structured plan of developmental activities are being indicated by teachers and administrators. These include more training, better and more programs and sequences, and more careful coordination of programs with existing curriculum design.

The Nevada Educational Communications Commission has carried through the Title III ESEA "Project Innovate" to make the teletrainer units and instructional tapes available for use in the school districts of our state. The cooperation between the State Department of Education and the Nevada Educational Communications Commission has had a good influence in establishing some beginning television assisted instruction in the State of Nevada, however, rudimentary.

# EDUCATIONAL TELEVISION

## Emerging Mandates

**I. STATEWIDE PLANNING MUST BEGIN AT ONCE, WITH THESE POINTS TO BE EMPHASIZED:**

A. There must be clear definition of educational needs for the individual school districts, all educational institutions, the communities of the State, and state agencies.

B. Educational objectives must be established before attempting to implement any new educational programs.

C. A well planned public relations program is essential in order to inform parents, educators, and the public in general of both the potential value of and the present need for television in education.

D. Planning must involve the State Department of Education, the Governor, Legislators, school districts, and community representatives.

E. Development of technological plans for a statewide transmission system must be based on the meeting of clearly defined educational needs and objectives, beginning with optimal use of teletrainers already owned by school districts and with the acquisition of sufficient teletrainers and close-circuit television systems to assure availability of programs to every student.

**II. A STATEWIDE IN-SERVICE TRAINING PROGRAM FOR TEACHERS AND ADMINISTRATORS MUST BE DEVELOPED.**

This should include:

A. Instruction in methods of production and classroom uses of television as an integral use of teaching methodology.

B. Development of potentials of television for teacher and student self-analysis.

C. Stimulation of use of television in curriculum in-service training programs for teacher improvement.

**III. A CENTRAL STATE TELEVISION MATERIALS CENTER SHOULD BE ESTABLISHED.**

This center should provide access to a wide variety of instructional television sources for all school districts. This should include inter-district exchange of locally produced in-service and instructional classroom video tapes, classroom and in-service materials produced by or under the direction of the State Department of Education, as well as those materials available from other out-of-state sources, commercial or non-commercial.

**IV. THE NEVADA STATE DEPARTMENT OF EDUCATION MUST COORDINATE DECISIONS AS TO THE KINDS OF MATERIALS TO BE PRESENTED.**

The material must be of a nature to aid the underpriviledged and others to carry behavior patterns and ideas on their first steps toward school. With material coordination, the involvement of the State Department of Education is essential in developing school district programs, community cable programs, and off-air programming.

**V. THERE SHOULD BE STATEWIDE COORDINATION AND LEADERSHIP FOR EDUCATIONAL TELEVISION.**

There should be the sharing of information, teachers, and expertise concerning ideas, plans, experimentation, and successes and failures in the use of television in the school districts of Nevada. This could probably be accomplished best through coordination by the Nevada Educational Communications Commission and/or the Nevada State Department of Education.

**VI. EACH SCHOOL SHOULD HAVE SOME MEANS OF STORING AND CATALOGING TELEVISION PROGRAMS FOR LATER USE.**

This is needed to make video tapes easily available for scheduling in regular classes or for large groups.

**VII. THERE SHOULD BE A CLOSED-CIRCUIT SYSTEM IN EACH NEVADA SCHOOL.**

Such a system will allow internal programming to provide for the following:

A. Video tape delay for outside television and in-service programs.

B. Schoolwide live or video tape programming.

C. Use of television as a magnifier in a single classroom.

D. Team teaching both interdepartmental and intradepartmental offerings

E. Group counseling, using video tapes to provide vocational information and consultation.

F. Vocational retraining.

**VIII. ADDITIONAL FINANCIAL SUPPORT FOR EDUCATIONAL TELEVISION IN NEVADA IS NEEDED.**

Legislation must be enacted to provide financial support to school districts to implement instructional television as an intregal function of educational programs, without detriment to the already established on-going educational programs.

# EDUCATIONAL TELEVISION

## Recommended Exemplars

## MODEL I: Statewide Leadership and Coordination for Educational Television Objectives

OBJECTIVES:

1. To develop and implement a statewide in-service training program for teachers and administrators.
2. To develop a plan for statewide implementation of educational television.

CONTENT: Statewide planning will provide for:

1. Definition of educational needs of Nevada schools.
2. Establishment of objectives for long-range and immediate educational programs.
3. A comprehensive public relations program which is both well planned and continuous.
4. Interaction between the Department of Education, the school districts, other educational institutions in the state, and the Nevada Educational Communications Commission to facilitate sharing of information, expertise, ideas, plans, and experimentation.
5. Planned acquisition of sufficient teletrainers and/or closed-circuit programming and equipment to every teacher.
6. Optimal use of teletrainers and closed-circuit systems owned by school districts.
7. Development of technological plans for a statewide transmission system.
8. Cooperative planning by the State Department of Education, the Governor, Legislators, school districts, University of Nevada, and other educational institutions, both public and private, the Nevada Educational Communications Commission and community representatives.
9. Development of recommendations for legislation to provide funding for implementation for a statewide communications network which will provide production, origination and transmission facilities to meet present and future needs of education for electronic communication media.

METHODOLOGY:

1. An interagency committee or representatives of the Nevada State Department of Education, the Nevada Regional Service Centers, and the Nevada Educational Communications Commission shall be formed to:
    A. Compile data from existing files of the Nevada Educational Communication Commission and the Nevada Department of Education on educational needs in Nevada.

B. Develop additional data for a more complete and specific statement of educational needs of:

(1) Each school district

(2) Regional Areas

(3) Statewide commonalities

C. Establish objectives designed to meet:

(1) Immediate needs

(2) Long-range goals

D. Design a program of action to meet objectives established by the committee, utilizing television in its various forms for most effective use of personnel, communication of essential information, training of educators and other educational specialists (i.e. guidanc personnel, nurses, administrators, and support personnel.)

2. The Department of Education, in cooperation with the Nevada Educational Communications Commission, shall conduct an in-service training program for professional staff members in the operation of television equipment, rudiments of production of classroom and in-service materials and principles of effective utilization of television in a professional field.

3. The Department of Education shall undertake to acquire and/or produce television tapes which enhance the effectiveness of its varied activitie in connection with school districts in the state. Such action shall be under the advisement and coordination of the Department inner division committee, which shall be responsible for:

A. Analizing activities of the several divisions to determine those whi may make most effective use of television;

B. Developing budgetary requirements for the Departments television activities;

C. Assigning priorities for the projects involving television;

D. Recommending contracts for special services, assignments of Department personnel to the various television projects; and

E. Providing for necessary materials, facilities, personnel, etc, to implement the Department's television activities.

4. The Department of Education shall exert active leadership in educational television in cooperation with the Nevada Educational Communications Commission's Educational Television Advisory Council. It shall:

   (1) Conduct a continuing evaluation of the uses of television in the Nevada schools.

   (2) Conduct a continuing evaluation of instructional television program materials used in the schools.

   (3) Conduct workshops to train district personnel in the most effective means and techniques of utilizing television in education.

   (4) Assist districts with production of their own educational materials and programs for both classrooms and in-service purposes.

   (5) Coordinate sharing of locally produced television materials among the state's school districts.

   (6) Develop regional and statewide projects for the more effective use of television in the education of children and adults.

## MODEL II: Central State Video Materials Center

### OBJECTIVES:

1. To provide the largest possible variety of instructional television materials to schools at lowest possible cost.

2. To facilitate interchange of locally produced television materials among educational institutions and school districts within the state.

### CONTENT:

1. Costs will be reduced by cooperative effort coordinated at the state level.

2. Video materials will include prerecorded instructional tapes from sources both within and outside of Nevada, as well as in-service materials from a variety of production sources and educational agencies.

3. Printed and audio-visual materials related to the video tapes will be available through the video materials center.

4. Duplication and distribution services will be provided through the video materials center.

### METHODOLOGY:

1. Participating school districts will support the video materials center through a cost-sharing plan, consistent with the Nevada Department of Education policies for school apportionment.

2. A subcommittee of the Nevada Educational Communications Commission's Educational Television Advisory Council, or a similar continuing committee, will function as a screening and evaluating body for the television materials to be adopted by or deleted from the video materials center.

3. A screening and evaluating committee will submit its findings to the Department of Education and to the Nevada Educational Communications Commission as recommendations for approval.

4. The video materials center and its educational service operations will be directed and coordinated by the Nevada Educational Communications Commission as advised by the Nevada State Department of Education.

## MODEL III: Educational Television As An Integral Part of the Curriculum Objectives:

OBJECTIVES: The following objectives represents some of the goals to be achieved by the Nevada State Department of Education, working cooperatively with the Nevada Educational Communications Commission, the seventeen county school districts and utilizing other necessary consultative and research sources.

1. There should be coordination of materials for preschoolers.

2. There should be coordination of television assisted programs in the early school years.

3. Each school in the middle school years should develop television assisted program capabilities.

4. Means should be developed for storing desired television programs for subsequent use.

5. Closed-circuit television capabilities should be developed for each school in the pre-vocational and career development years.

IMPLEMENTATION: The following steps should be considered, initiated and implemented wherever appropriate to achieve the above stated objectives:

1. The State Department of Education in cooperation with the Nevada Educational Communications Commission should exert leadership in television assisted instruction by coordinating and determining the causative factors and needs to be met through cooperative work with the underpriviledged, minority, and compensatory groups.

2. Leadership by the State Department of Education should involve such compensatory groups as the Office of Economic Opportunity, the National Association for the Advancement of Colored People, and the Intertribal Council in designing television programming for state and local pre-school needs. From these combined sources, programs will be developed or acquired in such areas as numbers, classic stories, the alphabet, language, and logic.

3. There will be cooperation with other organizations to provide special programming for gifted and special education groups.

4. Programs designed for Kindergarten will be developed or acquired. With a statewide preschool program in effect, television units in the curriculum will meet such needs as the development of communication skills, basic skills in art, manual dexterity, social interaction, and physical wellbeing.

5. In-service programs to help both teachers and children should include basic instruction in number and reading readiness, language skills, music, art, physical education, and other subject matter areas. This approach to training through television will occur in class with a teacher controlling transcribed programs or will come from a central system to aid in program improvement.

6. All children will benefit from in-service training of teachers in the use of newer teaching methods and materials. As a tool for in-service training, the educational television assisted instructional system will be of great importance.

7. Television will serve formal education by presenting what is not being taught in the classroom or by supporting what is being taught. It will not be used to teach what is already being taught in the classroom, by presenting for example, a teacher lecturing on the screen.

## THE INQUIRY METHOD

### Introduction

Knowledge is a tool to be applied toward the solution of personal and social problems, and to develop new knowledge. This development is a process--the dynamic aspect of knowledge that we call inquiry. Thus, if our students are to cope with a multi-dimensional knowledge explosion and if our students are to attempt the solution of personal and social problems, our schools must prepare them to use inquiry. Students must be given experience in the development of inquiry skills. It is ludicrous to send a student into the world armed only with selected facts, concepts, generalizations, and theories without the ability to use them. To assume the fulfillment of the objectives of education on the one hand, and not to deal equally with knowledge, inquiry (process), and values on the other is assuming something that never was nor can ever be.

## THE INQUIRY METHOD

### Present Practices

Inquiry is essentially finding out by one's self. Inquiry is a method supported by values and fed by knowledge. Inquiry enables students to learn how to learn. In the child's early development, because of his limited background and knowledge, inquiry must be structured. But as the child develops the physiological ability for more manipulation, the need for structure diminishes. Such ability comes much earlier to the child than we now realize. Freedom, such as self-direction practiced by students in some high schools, could possibly be used in the early school.

In the past, many people have felt that helping the child understand his life and solve his problems conflicted to a degree with teaching him content from the subject matter disciplines. Those espousing the inquiry method contend that these goals do not conflict. The tactics of inquiry are taught to the child precisely because they are the best tools for helping him comprehend his life and face his problems.

American society, which has charged public education with developing of a reflective citizenry has, over the years, prevented the examination, in school, of subjects and problems, which might be called "closed areas." According to Franklin Patterson of the NEA, these areas include the following:

1. Economics. While open to professional economists and many laymen, this field is so affected by taboos, confusion, and emotion that schools tend to avoid it as a subject for rational study.

2. Race and minority-group relations. In recent years, this subject has become more open to reflective inquiry in schools, but in some places, fears, tensions, and confusions continue to make it a closed area.

3. Social class. Here is a truly "closed area" in Mr. Patterson's judgment, "neatly ignored as a result of the widespread belief, 'there are no social classes in America'."

4. Sex, courtship, marriage. These subjects are more open to inquiry

than they were a few years ago, but critical analysis of contradictions and problems not usually encouraged.

5. Religion and morality. Morality is somewhat more open to reflective inquiry than are religious beliefs, but both tend to form a closed area as far as schools are concerned.

6. Nationalism and patriotism. It is difficult to question traditional beliefs, even if they are inconsistent with behavior or the requirements of national survival.

# THE INQUIRY METHOD

## An Overview

The inquiry method stresses issues rather than answers. It stresses the skill involved in building and testing new ideas, arriving at generalizations, and developing values. A child placed in a situation where he must seek out information for himself becomes acutely aware of the gaps in his knowledge. As he is led to explore books and other sources of information, he may encounter new evidence that conflicts with information previously acquired. He must either integrate his new data with previous knowledge or propose a different theory to explain it. Thus, he learns to try many approaches, to give his ideas a fair trial, and to follow his most promising ideas wherever they lead. He truly learns as opposed to "being taught," the process whereby a predigested group of "facts" or "truths" is given the child to learn.

There are three main objectives in the inquiry methods:

1. Implementing critical thinking. All pupils can learn to pose a problem, suggest possible answers, gather data, make tentative conclusions, and test the outcomes.
2. Modifying
2. Modifying attitudes and developing values and sensitivities.

3. Acquiring certain research and social skills. Teachers are urged to help pupils develop an attitude of open-mindedness, to respect human dignity, and to learn self-discipline.

We must recognize that children need to acquire first hand experiences from which they can draw generalizations. But we must also remember that children can verbalize rules without understanding them.

If lessons can be designed so that the child, instead of proving ideas deductively, produces ideas inductively, so much the better. A child's thinking improves much more if he first encounters data and then builds up ideas based on the data. With inductive lessons, the teacher has no doubt whether the children can defend their ideas, for the ideas have come from the data. When the teacher presents material deductively (which must at times be done), he finds that some children will learn abstract words and defend an idea but will have no concept of the idea itself. Thus, the individual, to be educated for a world in which the only constant is change, requires and should demand a curriculum in which the prime emphasis is "learning to learn."

In such a program the following three goals are compatible, and educational activities can be designed to strive for all three goals concurrently:

1. Humanistic education is the first goal. The inquiry approach should help the child comprehend his experience and find meaning in life.

2. Citizenship education is the second goal. Each child must be prepared to participate effectively in the dynamic life of his society. Correspondingly, the society needs active, aware citizens who will work devotedly for its improvement.

3. Intellectual education is the third goal. Each person needs to acquire the analytical skills and the problem-solving tools that are used by scholars through inquiry. With increasing maturity, the child should

learn to ask fruitful questions and examine critical data in social situations.

The tools for accomplishing the trifurcated objective reside in the framework of inquiry.

A program of instruction which is centered on organizing concepts will encourage the child to discover relationships and will help prepare him to be an independent thinker. The child should discover organizing concepts in a form which he can handle and then rediscover more and more complex and adequate forms as he advances through the curriculum. Revising concepts will teach him to hold them tentatively and prevent him from developing the erroneous notion that present knowledge will last for all time. The world is shifting and changing in a way that prevents the formulation of dogmas that can fix for any length of time what the citizen should know.

The citizen needs to acquire skills and information not only to adapt to his readily changing world but also to help shape his future society. In education for citizenship, as in all sound education, the student should know that he will be rewarded, not punished, for personal inquiry.

Knowledge, to be of significance to the learner, must become identified with his needs. The stage of development of the learner and the environmental conditions in which he exists largely determine when and what he will assimilate. Hence, in curriculum planning the characteristics, interests, needs, and maturity of the learner are of primary importance and must determine developmental tasks.

While it is impossible to predict with any degree of accuracy the exact problems with which today's student will be dealing tomorrow, it is imperative that each individual, to the extent of his abilities, develop the interests, attitudes, understanding, and ideals necessary for responsible citizenship. He must acquire the communicative, analytical, and evaluative skills and techniques which will better enable him to interpret the past as it affects the present. He must be able to formulate generalizations, see relationships, and predict future outcomes as they relate to past and present patterns.

To meet the needs of our changing society and to prepare the individual to meet these changes, we in education will have to make sure that the following education objectives are met:

1. Learning to learn.
2. Development of the creative talents and individuality of the student.
3. Development within each child of a wholesome self-image which is a true understanding of his abilities.
4. Development in each child of the skills needed to be analytical, evaluative, and to be able to formulate generalizations.

To emphasize that "change is the only constant," inquiry stresses several techniques. The curriculum should be structured in terms of concepts, skills, and values, with emphasis on meaningful ideas that would help the student.

Inductive learning and the discovery method of learning should be stressed. The school framework that makes grades and achievement flexible best suits inquiry patterned for process rather than outcomes. Greater attention is given to modification of behavior rather than to the behavioral outcomes, per se. This emphasis on process would certainly be emphasized in any curricular offering.

# THE INQUIRY METHOD

## Emerging Mandate

### I. A STRONG MANDATE EXISTS FOR THE ADOPTION OF THE INQUIRY METHOD AS A BASIC LEARNING STRATEGY.

The emphasis on the process of learning and the acquisition of the skills of learning is increasingly important in a world where today's facts are tommorow's fallacies. The mastery of the process is at the heart of inquiry and, indeed, of all sound learning.

# THE INQUIRY METHOD

## Recommended Exemplars

### MODEL I: The California Program

OBJECTIVE: The program is designed to develop skill in the process of inquiry, a grounding in selected concepts, and an awareness of settings as context.

CONTENT: An inquiry-conceptual approach to the studies of man as developed by the California Statewide Social Sciences Study Committee has three major elements:

1. First, are the *inquiry processes*, whose mastery is a primary objective of the program. The general process of inquiry can be divided into a number of separate procedural steps or particular inquiry processes. These individual mental processes can be divided and described in many different and equally arbitrary ways. The classisification used in this program is one that seems most effective for inquiry in the studies of man.

   The inquiry processes, as they are defined and classified for the purposes of this program, cannot be as sharply separated from one another in practice as they can be in theory. Rarely would anyone be using only one of these processes at a time, and the order of their listing does not imply that one necessarily comes before another in practice. But it is important to separate and put them in sequences for instructional purposes, so that in the classroom students can focus on them individually and learn to use them both *effectively* and *consciously*.

   Inquiry in the studies of man can be further clarified by grouping the individual inquiry processes according to three different *modes* of thinking. These modes are given the names analytic, integrative, and policy. As will be seen more fully below, the inquiry processes assigned to the analytic mode are parallel to, but different from, those assigned to the integrative mode. For example, the inquiry process of observation in the integrative mode tends to be much more inclusive or comprehensive. The inquiry processes assigned to the policy mode do not parallel those assigned to the analytic and integrative modes.

   The processes and the modes are put into sequences in the studies composing this program so that by the end of Grade 12 the student should have become proficient in the three modes of inquiry--analytic, integrative, and policy--and in each of the inquiry processes belonging to each mode. He should recognize which mode is appropriate for which kind of inquiry, and he should be able to move from one mode to another as appropriate.

2. The second major element of the program consists of *concepts* drawn from the social sciences and history. Concepts are tools for understanding man in society. From the vast array of conceptual tools developed by the disciplines, a selection has been made of those that have proved most useful for understanding man in society and those that

seem most relevant to the world that today's children will be living in. Most of the important concepts are introduced in the early grades and then developed in greater sophistication at particular points in the later grades.

3. The third and final major element of the program consists of *settings*--the pheonomena, times, and places that provide the context of study. Inquiry cannot take place in a vacuum or in relation to insignificant substantive phenomena. But given the primacy of inquiry-conceptual objectives, the choice of settings is always in terms of these objectives. In any unit of study the primary question always is: What setting will be most effective for practicing the inquiry processes and furthering the concepts singled out for emphasis in that unit of study?

METHODOLOGY: The method of presentation is based on the following threefold catagorization of modes of thinking: Most thinking is an effort to answer, in one or another way, one of the following questions: (1) Why do these phenomena behave as they do? (2) Who am I, or who are we? (3) What do I, or we, do next? A different set of inquiry processes is involved in thinking about each of these questions, and to each mode of thinking a name may be given. (1) The *analytic mode* (Why do these phenomena behave as they do?); (2) The *integrative mode* (Who am I, or who are we?); and (3) The *policy mode* (What do I, or we, do next?).*

These three modes of thinking are almost never clearly separated in fact, but can be separated in the imagination. It is particularly important that they be separated, even to the point of distortion, in the classroom studies of man. Nowhere else in the school curriculum are the three modes of thinking more frequently used together; therefore, these different manners of behaving before social phenomena must be clarified if students are to develop skill in using them.

This point will become clearer if one thinks of the relationships among the natural sciences, the humanities, and the study of man in society. Inquiry about physical and biological phenomena--addressed overwhelmingly to the analytic question, "Why do these phenomena behave as they do?"--has been enormously productive in enabling man to understand and control his natural environment. Humanistic inquiry--reflecting through philosophy, religion, literature, and the arts on the *integrative* question, "Who am I, or who are we?"--has helped man clarify his goals and values. The educational goal of the social sciences--historical studies, behavioral sciences, and policy analysis--should be to bring the scientific and the humanistic together, to help students understand the relationships among what is technically possible, what is humanly valued, and the society within which the possible and the valued are to be realized. Thus, inquiry in the social sciences asks not only the *analytic* question--"Why do people behave as they do?"--and the *integrative* question--"Who am I, or who are we?"--but also the *policy* question--"What do I, or we, do next?" It is by learning to distinguish between these three modes and by practicing the processes

*This catagorization refers to the central thrusts of the respective modes. Strictly speaking, analytic inquiry has some implication for the integrative question; integrative inquiry addresses itself in part to the analytic question, and one process of the policy mode, valuing, is much involved in dealing with the integrative question.

of inquiry related to each, that the student will be best equipped to accept his responsibilities and realize his individual and mature goals within a constantly changing society.

## MODEL II: Inquiry as a Strategy for Learning

OBJECTIVE: The use of inquiry as a specific learning strategy is aimed at the acquisition for learning beyond the merely factual.

CONTENT: Using Inquiry in the Classroom--Guidelines for Planning by Barry K. Beyer stresses that we learn in a variety of ways. So, too, are there a variety of strategies for facilitating learning--in other words, for teaching. A teaching strategy is merely a way of arranging specific instructional techniques and learning experiences so as to accomplish predetermined objectives. Expository strategies involve techniques of reading, reciting, and telling and seem best suited for covering a maximum of material in a minimum amount of time. Inquiry strategies employ basically these same kinds of techniques, as well as those of discussion, but arrange them differently and use them for different ends. Moreover, the kinds of materials and the way in which they are used in significantly different. The use of inquiry strategies is most desirable when the objectives are to teach more than mere factual data, to develop conceptualized knowledge, to clarify certain values, or most importantly, to refine the intellectual skills--the technology of how to learn by inquiring.

METHODOLOGY: There are undoubtedly a variety of strategies that could be built on the inquiry process of learning. In most instances, however, the major differences between them is in the terminology used to describe the different steps; the intellectual operations described are quite similar. The intent here is, not to outline the inquiry strategy. Rather, it is merely to outline a strategy that is based on the process of inquiry and to suggest the prime factors that must be considered in planning the use of such a strategy in the classroom.

Any inquiry-oriented teaching strategy must provide an opportunity for the learner to

1. Identify and clarify a purpose for inquiring
2. Build a hypothesis--a tentative answer or solution
3. Test the hypothesis
4. Draw conclusions
5. Apply the conclusions in new situations to new data
6. Develop meaningful generalizations.

A teacher who wishes to plan a learning experience that will utilize and foster inquiry should thus include activities in his plan that will enable the learner to engage in each of these operations.

## MODEL III: A Sequential Program

OBJECTIVE: The program aims to develop a strongly sequential learning pattern that is developmental and carefully structured.

CONTENT: The teacher using concepts and generalizations as a guide to lesson planning must be concerned not only with the development of these ideas, but also with the proof and use of these ideas in the present learning situation and in following units and/or grades. This consideration is important if the K-12 curriculum is to be sequential and accumulative. Accumulative here means that experiences in one grade level build upon previous experiences and that the skills, attitudes, and concepts introduced in one grade are built upon in succeeding grades. For example, it is important that the teacher introduce--have the students develop--the idea of division of labor in the first grade unit on the home. But it is just as important to verify the student's generalization about division of labor and to use that idea in looking at families within or outside of their community. This is also true of the concept "decision-making" which might be used at the seventh or ninth grade: Is this idea needed to analyze the political structure of a society? Should we use it? These two concerns are as important as the concern of developing ideas in the first place.

The model which follows suggests the general strategy that teachers might use to approach conceptual learning. Teachers can use this model to develop a generalization, major concept or developmental variant. Indeed, teachers may use this model to develop generalizations that they have composed using a major discipline concept as a guide. The reader is urged to apply this model to the actual developmental variants listed for a grade level of his interest.

Model of Planning Map

| What concept or generalization is desired? Skills? Attitudes? | What activity or activities should be tried in order to develop or prove, or use this idea; to build these skills and attitudes? | What facts (data) materials, etc. are needed to reach these goals? | Pla |
|---|---|---|---|
| Generalization (hypothesis formation, proof and use) Evaluation | Development (proof or use) of concepts through a multi-activity, multi-resource approach | Facts background information | Teach (learning starts her |

For example, in a tenth grade U. S. History course dealing with colonial trade, a generalization like "a country will tend to specialize in producing goods and services that require larger quantities of its abundance, and, therefore, cheaper resources" (concept-specialization) might be used as a beginning point for planning a lesson dealing with the triangular trade routes.

Some objectives with regard to knowledge, skills and attitudes in such a lesson might consist of the following:

Knowledge

1. To know that resources and goods vary from country to country.
2. To know natural resource allocation of countries studied.
3. To know some of the complexities of international exchange.

Skills (inquiry objectives)

1. To be able to abstract principles from a model.
2. To be able to generalize.
3. To be able to use evidence in support of an argument.
4. To be able to apply principles learned in one situation to other situations.

Attitudes

1. To be willing to test a hypothesis.

Under the second consideration of what activity or activities should be developed, it might be interesting to look both at the colonial triangular route situation and the Common Market situation of modern Europe.

With regard to factual data and materials, much material (texts and supplementary) is available on this subject. The task of the teacher and librarian might well be to crystalize the available material and make it available to the students studying particular problems within the framework of this lesson.

METHODOLOGY: As the lesson is taught, the direction will go from the presentation and collection of factual data to an activity that will hopefully give the student the opportunity to develop, verify and use the concept of specialization as it applies to international trade.

In this way, the students with the teachers guidance will develop the ability to discover (internally develop), test and apply concepts and generalizations to problem areas that will arise in their personal and social lives.

Available Resources for the Inquiry Approach

1. Fenton Films (Holt, Rinehart, & Winston)
2. Asian Materials, University of California
3. Developing Inquiry, J. Richard Suchman
4. Cooperative Center, Cleveland Heights, Ohio
5. SRA Math and Social Science Kits
6. Time, Space, Matter, McGraw Hill Company
7. "We're Knocking Down the Walls", Enfield High School, Enfield, Connecticut
8. Syracuse Project, Dr. Roy Price
9. Charles E. Merrill Publishers, (6 discipline handbooks)
10. Lawrence Senesh Materials, SRA
11. IDEA, Dr. Talbolt, University of Oregon
12. Contra Costa County, California
13. Man in Action Series, Prentice-Hall

## THE NON-GRADED SCHOOL

### Introduction

The non-graded school attempts to answer the problem of individual differences by breaking down age-grade barriers and by permitting children to proceed at their own rates of speed. The concept is not new, for non-graded schools have been in evidence in American education since the early 1930's. School systems acutely aware of the unhappy consequences of the rigidly graded school have thought of alternative approaches of which non-grading is one. The major move toward the ungraded school began during the 1940's and 1950's. The publication of Goodlad and Anderson's Non-Graded Elementary School in 1959 gave the movement added impetus and school districts involved in programs they considered ungraded began to publish accounts, often rhapsodic, of their experiences with non-graded schools. There is almost no end to the anectodal accounts of teachers and administrators dealing with the non-graded school, but the total number of studies supplying hard data in this area is discouragingly small. Moreover, the accumulation of studies providing extensive descriptions of many of the aspects of non-grading is infinitesimal. Many of the reports are incomplete or vague about such considerations as the numbers of students involved, the kind of non-grading being evaluated, and even the precise meaning of the findings. Many of the more extensive reports reflect the writer's optimistic bias about non-grading to the point that the intrinsic values of the findings is suspect.

## THE NON-GRADED SCHOOL

### Present Practices

National surveys, designed to chart the growth of ungraded schools, have provided somewhat conflicting figures. The National Education Association made surveys in 1958 and 1963, the United State's Office of Education made surveys in 1958 and 1960, and the University of the State of New York conducted its own statewide survey in 1963. The results are notable more for apparent contradiction than for consistency. Taking extremes, and seeking ground somewhere between, William P. McLoughlin estimates that less than eleven percent of the districts surveyed in both the NEA and USOE studies actually have non-graded programs. In 1961, Goodland estimated that of 1000 schools attempting non-grading only 125 schools were operating truly non-graded programs. At any rate, the growth of ungraded or continuous-progress programs in the schools has been something less than spectacular.

In Nevada, some rural areas still support multi-graded school operations. While such schools could easily, and sometimes do unofficially, operate less rigidly than larger schools, there has been little effort in most areas to operate these schools on a non-graded basis. There have been some attempts mostly at the elementary level to introduce non-graded programs within a three- or four-year span at least on a modified basis. There have also been attempts to make the age-grade correlation in some high schools less rigid, but in Nevada, as in the rest of the nation, what experimentation there has been with non-grading has occurred largely at the elementary level.

While stirrings and even tentative movements toward non-grading have been

452

discernible, it is doubtful that an extensive, consistent, truly non-graded program exists in Nevada at present. In this direction, there has been more interest than action, more timidity than boldness, and more discussion than accomplishment.

## THE NON-GRADED SCHOOL

### Emerging Mandates

**I. THE INTRODUCTION OF NON-GRADED PROGRAMS SHOULD BE ATTEMPTED ONLY AFTER CAREFUL STUDY AND CONSIDERATION.**

Administrators and teachers should be aware that objective research on the effectiveness of non-grading has thus far been inconclusive. Despite enthusiastic endorsement from some quarters, hard data does not give unqualified support to the non-graded program as the solution for the problem of individual differences among students.

**II. THE NON-GRADED PROGRAMS SHOULD BE SO STRUCTURED AS TO PRODUCE AS MUCH STATISTICALLY SIGNIFICANT DATA AS POSSIBLE.**

The need for such data is apparent, for the present lack of objective support makes the risk of such programs relatively high. Such evaluative procedures require careful planning and a willingness to be objective in evaluating the total program.

# THE NON-GRADED SCHOOL

## Brief Critical Assessment

Limited research conducted in most curriculum areas makes it difficult to develop firm conclusions as to the superiority of non-gradedness. If the findings of studies conducted in reading, arithmetic and language arts were wholly consistent, it would be easy for educators to decide whether or not to institute non-graded programs. The findings, however, are diverse, and simple or clearcut choices are not always possible. In a review of 34 studies of non-grading, McLoughlin finds that non-grading makes no significant difference in the general reading attainment of children, that in arithmetic achievement children from graded classes appear to have a slight edge over children from non-graded classes but that in arithmetic reasoning children from non-graded classes score slightly higher, and that in language arts, results likewise do little to establish the unequivocal instructional superiority of either the graded or non-graded school. He reports, likewise, that total achievement scores failed to discern differences between the performances of children from graded and non-graded classes. In summary, he states that no hard and fast conclusions about the efficacy of non-gradedness on children's performance at any level in any subject area.

Studies of the influence of non-gradedness on adjustment are likewise inconclusive. The same could be said of the effect of non-gradedness on the performance of students of varying ability. While one study might report uniformly superior achievement from children from non-graded classes, another reports that children in all ability categories from graded classes outstripped their contemporaries from non-graded classes in all areas where achievement was measured. These diverse findings do nothing to make the lot of the educator who must decide whether to institute a non-graded program or to remain with a traditional graded program any easier.

Some studies made have been based upon staff appraisals of non-graded programs. Here there is some unanimity of opinion. While teachers from graded and non-graded schools are likely to see their respective approach as the better one, where differences do occur, they tend to favor the non-graded school. These teachers feel that they can do a better job with the slow and average child than they can in a graded school. Frequently, however, even teachers who favor the non-graded school over the graded school and endorse it most heartily cannot indicate specific gains made by children in non-graded classes. Yet, if they cannot find the real advantages for children in non-graded classes over graded classes, the entire program lacks a reason for existence.

Actually and unfortunately, the native differences in instructional practice and procedures between the two organizations are slight. Indeed, the study projected by the University of the State of New York concludes that "marked differences between the instructional practice in graded and non-graded classes are hard to find." Of the seventeen criteria used in these studies only six seemed to discriminate between instructional practices in graded and non-graded classes. If indeed the critical difference between a graded and a non-graded school lies in the instructional process, then true non-grading has not reached the American classroom. The available research strongly suggests the contemporary non-grading is in name only, and until substantive alterations in instructional practices occur, it is little short of foolhardy to look for marked differences in the achievement and adjustment of boys and girls from non-graded classes.

The most significant instructional support for the non-graded program must be consistent in its thrust toward individualized instruction. The writing of learning packages based on clearly stated behavioral objectives and involving a variety of learning activities and testing procedures is the most promising of such instruments. It is most important to recognize that some learning strategy consistent philosophically with the aims of the non-graded or continuous-progress school must be instituted to make the program educationally meaningful. Unless such instructional changes are involved, the administrative changes will hold little meaning.

The creation, execution, and evaluation of such individualized programs within the framework of the non-graded school is needed in Nevada. The formulation of sound instructional strategies and the development of objective evaluative instruments and procedures should make such innovative programs worth doing. It is important to note, also, that the enthusiastic testimony of teachers and administrators, though heartening, is no substitute for hard data.

In the matter of parent and pupil reaction to the non-graded school, what research exists is somewhat inconclusive. In general, parents approve of non-grading regardless of the form it takes--multi-grade classes, ability groups, or just "nongraded." There is considerably less reaction for or against non-graded schools among the children. They generally exhibit no clear preferences for either type of organization, perhaps feeling that school is after all school. This is not to say that with an individual project and with individual teachers, individual students may not have a strong preference. Curiously, though, in a study by Reginald Kierstead "the children in the non-graded classes reported they were unaware that they were in a class where a different instructional program was supposed to be in operation."

The current interest in the non-graded or continuous- progress program underscores the need for some educational organization to recognize individual differences and to do something about them. There can be no argument that current practices in the graded school fall far short of the ideal. The same statistics that fail to prove conclusively that the non-graded school offers advantages in achievement or adjustment over the graded school also fail to show that the graded school is the better of the two. There may well be alternatives to either. Flexible modifications in staffing practices, including a varied utilization of teachers and teacher cycling hold considerable promise. In teacher cycling, a learning continuum is tried by assigning one teacher to a group of children for a prolonged period of instruction. In such a program, one teacher may work with a group of children during their primary years and guide them to new learning experiences as they are ready. At any rate, there must be alternatives to present graded practices, but current research fails to give an unqualified endorsement to the non-graded school.